A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTE NATAL MOTHERS AT SELECTED PRIMARY HEALTH CENTRE IN DINDIGUL DISTRICT

A DISSERTATION SUBMITTED TO

THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY,

CHENNAI,

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

OCTOBER-2017

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CERTIFICATE

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A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTE NATAL MOTHERS AT SELECTED PRIMARY HEALTH CENTRE IN DINDIGUL DISTRICT.

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ENDORSEMENT BY THE SUBJECT GUIDE AND HOD

This is to certify that the dissertation entitled **"A Study To Assess The Effectiveness Of Ginger Tea On Reduction Of Morning Sickness Among First Trimester Primi Ante Natal Mothers At Selected Primary Health Centre In Dindigul District"** is a bonafide research work done by **Mrs.Anna Kamu.S** in partial fullfilment of the requirement for the degree of Master of Science in Nursing (Obstetrics and Gyneacological Nursing)

Seal and Signature of the subject guide and HOD

Asst. Prof.T.GANGA ESWARI, M.Sc(N),MBA(HM)
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ABSTRACT

A Study was conducted “to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers at selected primary health centre in Dindigul district” was done by Mrs. Anna kamu.s as a partial fulfilment of the requirement for the Degree of Master of science in Nursing to the Tamilnadu Dr.M.G.R. Medical University, Chennai during the year 2015-2017.

The objectives of the study were, to assess the level of morning sickness among first trimester among primi ante-natal mother in control and experimental group, to find out the effectiveness of ginger tea in reduction of morning sickness and among first trimester primi ante –natal mothers in experimental group and to determine the association between the pre test level of morning sickness with selected demographic variables among first trimester primi ante-natal mothers in control and experimental group. In this study a quasi experimental non-randomized control group pre test post test design was adopted. Non probability purposive sampling technique was used to select each 30 samples in experimental and control group equally. Interview technique was used to collect the demographic variables and Modified Rhodes Index of Nausea, Vomiting and retching scale was used to assess the level of morning sickness. Experimental group receives ginger tea twice a day for 4 days.

The result shows that, in the experimental group, majority 18(60%) of the primi ante natal mothers belonged to the age group of 21-25 years,24(80%) of them had primary education,18(60%) of them in sedentary work, 16(53.3%) of them are unemployed, 19(63.3%) of them are in 9-12 weeks of gestation, 28(93.3%) were non vegetarian, 14(46.7%) of them had monthly income Rs.5001-10000, 20(66.7%) of them are in rural,11(36.7%) of them are Christian, 21(70%) belonged to nuclear family.

The control group, majority 18(60%) of the primi ante natal mothers belonged to the age group of 26-30 years,21(70%) of them had primary education,13(43.3%) of them in sedentary work, 14(46.7%) of them are daily waged workers, 59(50%) of them are in 9-12 weeks of gestation, 25(83.3%) were non vegetarian, 12(40%) of them had monthly income <5000, 23(76.7%) of them are in rural,21(40%) of them are Hindu, 17(56.7%) belonged to nuclear family.

The level of morning sickness in control group were 1(3.3%)subject experienced mild sickness,8(26.7%) had moderate sickness ,12(40%) shown severe symptoms and 9(30%) experienced profound sickness respectively in post test. The level of morning sickness in the experimental group were 12(40%) subject experienced mild sickness, 17(56.7%) had moderate sickness, 1(3.3%) shown severe sickness and no one experienced profound sickness respectively in post test. This finding reveals that the levels of morning sickness among first trimester were decreased in experimental group than control group.

The control group calculated‘t’ test value was 1.79 which is not significant at $P<0.05$ level. The experimental group calculated‘t’ test value was 11.1 which is significant at $P<0.001$ level.

In comparing post test scores of experimental group and control group calculated ‘t’ test value for 7.84 which was significant at $P<0.001$ level. Hence H_1 was accepted. It can be concluded that ginger tea was effective in reducing the morning sickness among first trimester primi ante natal mothers in experimental group than control group.

There was no significant relationship between level of morning sickness and their demographic variables in experimental and control group.

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CHAPTER-I

INTRODUCTION

"Pregnancy seems designed to prepare you for life as a mother. You start making sacrifices nine months before the child is born, so by the time they put in an appearance you are used to giving things up for them."

— Brett Kiellerop

Motherhood is an inevitable part of a woman's life. It's a natural law that a woman should carry her baby in her womb for 9 months and to undergo the process of labor. From the time the mother starts conceiving the baby, it is called pregnancy and the mother elicits describable and undifferentiated changes in the physical and physiological process of life. The mother experiences some signs and symptoms right from the first trimester of pregnancy. As each woman are unique, different mothers experience and present different signs and symptoms and it is not a must that all women should have the same manifestations (Mary, 2008).

About 90% of the women experience nausea and vomiting during pregnancy. The intensity of nausea and vomiting depends upon the individuals according to other predisposing factors which are still remaining unknown. Some argue about the role of familial predisposing factors as the cause relating to nausea and vomiting, while others contradict. Even though the factors remain unknown, the problems faced by the pregnant ladies due to nausea and vomiting make it difficult for them to manage the time of pregnancy as well as to succeed in maintain normal and recommended nutritional status which in its absence can create complications for the mother and the baby (Ruth & Linda , 2009).

Morning sickness is common among pregnant women. Fortunately, for the majority it's a temporary and minor nuisance. For women with hyper emesis gravid

arum, the problem is even worse - and potentially dangerous. These women would readily settle for normal morning sickness - their vomiting is so severe no food or liquid can be kept down. Unlike most morning sickness, hyperemesis gravidarum usually persists past the first trimester (third) of pregnancy. It typically subsides by week 21 of pregnancy, but can last much longer (Merriam, 2012).

Nearly all women have some nausea, vomiting or "morning_sickness," particularly during the first 3 months of pregnancy. The cause of nausea and vomiting during pregnancy is believed to be rapidly rising blood levels of a hormone called HCG (human chorionic gonadotropin), which is released by the placenta. Nausea and vomiting usually peaks between 2 and 12 weeks of pregnancy and goes away by the second half of pregnancy. With proper identification of symptoms and careful follow-up, this condition rarely presents serious complications for the infant or mother. Too much vomiting is harmful because it leads to dehydration and poor weight gain during pregnancy. Social or psychological problems may be associated with this disorder of pregnancy. If such problems exist, they need to be identified and addressed appropriately (Russell, 2011).

The venerable medical journal *Obstetrics and Gynecology* published a study on the effectiveness of ginger for pregnancy-related nausea and vomiting. Seventy pregnant women who were less than 17 weeks pregnant were studied for five months to determine if ginger had any effect on morning sickness. They were given either 1 gram of ginger daily or a placebo. Both nausea and vomiting decreased significantly in the ginger group, while barely at all in the control group. No adverse outcomes were reported. The researchers concluded that ginger is safe and effective for nausea and vomiting during pregnancy (Donna Earnest Pravel, 2012).

Researchers have linked ginger's efficacy in treating NVP to its ability to either prevent or to help expel gas. Ginger uses gastric effects to increase rhythmical passage of food down the digestive tract, called peristalsis. Unlike medications, ginger does not act on the central nervous system. Instead, it only acts on the digestive tract and thus avoids the complications associated with stimulating the nervous system. Chemical compounds called gingerol and -shogaol are thought to give ginger its anti-nausea properties (Jean Harvey-Berino, 2015).

According to the National Health Service (NHS), UK, about 28% of women experience nausea without vomiting. If nausea and vomiting is to occur it will usually do so during the 6th week of pregnancy, but in some cases it may strike during the second week. For many women the symptoms of morning sickness are their first signs of pregnancy. Most pregnant women find that the morning sickness improve after the 12th week of pregnancy. Unfortunately, for some women symptoms persist throughout their pregnancy.

In the vast majority of cases, morning sickness, although an unpleasant experience has no health risk for the baby, and is a normal part of pregnancy. In fact, some studies indicate that morning sickness during pregnancy often bodes towards a healthy pregnancy, with lower rates of miscarriages and still births, compared to pregnancies with no nausea or vomiting. Although viewed romantically and humorously, morning sickness can seriously affect the mother's quality of life and how she goes about her daily activities. Women who are able to receive the support of family and friends tend to cope much better (Christian Nordqvist, 2015).

Herbal preparations such as ginger tea may help to relieve morning sickness symptoms.

NEED FOR THE STUDY:

Pregnancy is a long and very special journey for a women .It's a wonderful experience yet it is associated with some minor disorders as nausea and vomiting, heart burn, constipation, cramps, backache, varicose veins, ankle edema (Ruth.V,2011).

According to WHO, in World the total fertility rate was 2.7 and total fertility rate in India was 3.1 in the year 2000-2005. According to UNICEF data, in India the antenatal care coverage percentage in the year 2005-2006 was 74% and 47% of birth attended by skilled health personnel**.** According to Census of India, in Karnataka female population constitutes 49.11% of total population and the total fertility rate is 2.2 (WHO, 2013).

Among all the minor discomforts associated with pregnancy a very common experience shared by pregnant women all over the world is "morning sickness", a normal psychological phenomenon not an illness but a part of being healthy. Nausea and vomiting specially in the morning, soon after getting out of bed are usually common in primi gravida. They usually appear following first and second missed period and subside by the end of first trimester (Dutta, 2011).

Hyperemesis gravidarum is the severe type of vomiting of pregnancy which has got deleterious effect on the health of the mother and/or incapacitates her in day to day activities. It affects 1 in 1000 pregnancies or 0.5-2%. 70-80% of pregnant women will endure nausea symptoms and 40-50% will experience vomiting. Although 20% of women will experience morning sickness for a longer period of time and 2% of these will suffer until baby is finally born. The incidence seems to higher among teenagers, women over age 35, women who are obese, non smokers or women with multiple pregnancies (Smith, 2012).

Some researchers consider morning sickness to be normal because growing placenta produce estrogen which can heighten a woman's sense of smell and cause nausea. If a placenta is not producing estrogen it means that there may be a problem with pregnancy. Others suggested morning sickness may also be exerting a protective mechanism by making a pregnant women shy away from foods that may be unhealthy for her fetus.

A cross sectional comparative study was done to examine perceived stress, social support, maternal psychological adaptation among 150 pregnant women with different severities as mild, moderate, severe of nausea and vomiting of pregnancy. The findings revealed that pregnant women with mild nausea vomiting had significantly lower stress than did pregnant women with severe nausea and vomiting. Social support and maternal adaptation were not different but the severity was associated with fear of helplessness and loss of control**.**

A study was conducted among 160 women who provided daily recordings of pregnancy duration, severity of nausea and vomiting. The findings were that 74% of women reported nausea lasting a mean of 36.4 days. Morning sickness occurred in only 1.8% of women whereas 80% reported nausea lasting for all day. Only 50% of women were relieved by 14 weeks of gestation and 90% had relief by week 22.Researcher suggested a larger study is needed in clinical trial.

A study was conducted to assess nausea vomiting of pregnancy among 363 pregnant women. Results were that 28% experience nausea only while 52% nausea and vomiting. The mean number of days from last menstrual period to onset and cessation was 39 and 84 respectively. The mean total number of hours of nausea per pregnancy in those 292 women experiencing symptoms was 56 with peak symptom

occurring in 9th week. Researcher concluded a detailed study is needed to know the etiology of nausea (Gadsby.R, 2011).

Management includes reassurance, dietary modifications, pharmacological therapy for patient with persistent symptoms and complementary alternative treatment as psycho therapy, herbal remedies, acupressure (Quinla.J.D, 2013).

Ginger is used in more ways than any other spices. The derived products are such as ginger powder, syrup ginger, volatile oil. The chemistry of component which contributes aroma and pungency that characterize ginger is reviewed. Areas where more research is needed are functional, physiological, toxicological properties in use of ginger (Govindrajan, 2014).

A clinical trial study conducted among 70 antenatal women who were experiencing severe nausea and vomiting during pregnancy were randomly assigned to take capsules 250mg of ginger four times a day or a placebo. Compared to controls women who took ginger for 4 days reported significant improvement in nausea at the level of $p<0.014$and fewer episodes of vomiting at the level of $p<0.021$.Although results were good but researcher suggest a larger study is needed to determine safety of ginger during pregnancy (Vutyavanich.T, 2011).

The researcher has observed during her clinical posting that morning sickness is one of the main health problems which affect all pregnant women. As conventional antiemetic are burdened with potential of teratogenic effects during embryogenesis period of pregnancy. Researchers felt that there is a need of intervention in this field in order to support pregnant mother so that she can enjoy her pregnancy. Ginger tea is one of the herbal remedy used in the treatment of nausea and vomiting but as there is need for further study in that area, so the investigator is interested to conduct an experimental study by using ginger tea with an aim to reduce nausea and vomiting.

STATEMENT OF THE PROBLEM:

A Study to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers at selected primary health centre in dindigul district .

OBJECTIVES:

1. To assess the level of morning sickness among first trimester among primi ante-natal mother in control and experimental group.
2. To find out the effectiveness of ginger tea in reduction of morning sickness among first trimester primi ante –natal mothers in experimental group.
3. To determine the association between the pre test level of morning sickness with selected demographic variables among first trimester primi ante-natal mothers in control and experimental group.

HYPOTHESES:

H_1-The mean post test level of morning sickness will be significantly lower than the mean pre test level of morning sickness among first trimester primi ante-natal mothers in experimental group.

H_2-The mean post test level of morning sickness in experimental group will be significantly lower than the mean post test level of morning sickness in control group among first trimester primi ante-natal mothers.

H_3-There will be significant association between the level of morning sickness among first trimester primi ante- natal mothers and their selected demographic variables in control and experimental group.

OPERATIONAL DEFINITIONS:

1. **Effectiveness:** the desired effect.

In this study it refers to the extent to which ginger tea has the effects as measured by reduction in occurance of vomiting and feeling of nausea.

2. **Morning sickness:** It refers to nausea and vomiting which occurs during first three months of pregnancy.

In this study morning sickness refers to the sense of feeling nauseated and vomiting experienced by first trimester primi antenatal mothers who will be assessed in terms of characters such as retching and dry heaves, distress and sick to the stomach.

3. Ginger tea: It refers to tea made of ginger root in this study ginger tea was prepared by boiling 300ml of water over medium to high heat and then added 500mg ginger root, allowed it to boil for 3-5mts removed from heat and strained. Added sugar for taste (1/2 teaspoon) and served the mothers twice a day for four days.

4 .First trimester: Refers to the first three months of pregnancy i.e. period between 1-12 weeks of pregnancy.

In this study first trimester refers to the first day of last period and lasts until the end of week 12.

5. Primi antenatal mothers: Refers to all pregnant women before childbirth and who are pregnant for the first time.

In this study primi antenatal mother refers to mothers who are pregnant for the first time and have the symptoms of morning sickness.

ASSUMPTION:

1. Morning sickness may differ from one individual to another.
2. Morning sickness is the normal physiological changes during pregnancy for most of the mothers during first trimester.
3. Ginger tea will reduce the severity of morning sickness.

DELIMITATION:

The study is limited to;

1. The area which is selected for the data collection.
2. The primi antenatal mothers who are in first trimester.
3. The primi antenatal mothers who are not in high risk of pregnancy.
4. Each sample for 4 days.

PROJECTED OUTCOME:

- The findings of the study would help nurse to understand the effect of ginger tea for morning sickness.
- The findings would also help nurse in conduction of future research by using other complimentary therapies in reducing the morning sickness.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is an integral component of research process. It enhances the depth of knowledge and inspires a clear insight into crux of problem. It help the researcher to know what data are available to narrow the problem itself as well as the technique that might be used.

Review of literature helps to develop a strong knowledge base to carry out research in educational, clinical practice settings and for further development of knowledge in nursing science (Pilot, Beck. 2011)

Literature relevant for this study had been organized in the following sections.

A) Studies related to morning sickness.

B) Studies related to management of morning sickness.

C) Studies related to use of ginger in reducing nausea and vomiting

A) Studies related to morning sickness.

Lacro.R, et al, (2014) had done a study in Norway to estimate the risk of morning sickness according to whether the daughters and sons under study were born after pregnancies complicated by morning sickness. The samples of the study were 544087 units of mother and childbearing daughter and 399777 units of mother and child producing son. The study states that daughters who were born after a pregnancy complicated by morning sickness had a 3% risk of having morning sickness in their own pregnancy, while women who were born after an unaffected pregnancy had a risk of 1.1% Female partners of sons who were born after pregnancies complicated by morning sickness had a risk of 1.2%. Daughters born after a pregnancy not complicated by morning sickness had an increased risk of the condition if the mother

had morning sickness in a previous or subsequent pregnancy 3.2 if morning sickness had occurred in one of the mother's previous pregnancies and 3.7 if it had occurred in a later pregnancy. The study concluded that morning sickness is more strongly influenced by the maternal genotype than the fetal genotype, though environmental influences along the maternal line cannot be excluded as contributing factors.

Swallow B.L.S et al, (2012) conducted a study to find out aversive stimuli that are related to nausea vomiting in pregnancy among 273 women in an antenatal setting. Data was collected by using nausea and vomiting in pregnancy instrument: General Health Questionnaire (GHQ).Results stated that total of 5% women reported that an aversive stimulus was olfaction, with 72% reported food smells. A number of women were affected by the odour of drinks 26% and other products 31%.Researcher concluded odour appears to be an important stimulus related to pregnancy nausea vomiting.

Koken.G, et. al, (2011) had undertaken a study to investigate association between depression and anxiety early in pregnancy and nausea and vomiting. Anxiety and depression scores of 230 women were investigated by using Hospital Anxiety and Depression Scale. Nausea and vomiting of pregnancy were scored by using Rhodes System. Results shown a significant correlation between Rhodes score and anxiety at the level of $r=0.388, p<0.001$ and depression score at the level of $r=0.331, p<0.001$was found Gestational age showed inverse correlation with anxiety score at the level of $p=0.019$.The conclusion was that there is an association between anxiety and depression early in pregnancy and severity of NVP.

Iatrakin.S.M (2013) conducted a study using questionnaire to 102 pregnant women in the first 12 weeks of pregnancy in an effort to see which factor is co-related with nausea and vomiting. Findings showed that nausea, vomiting correlated with

unsuitable diet with big and rare meals, poor communication with husband, poor communication with obstetrician, stress doubts and inadequate information about pregnancy and childbirth.

B) Studies related to management of morning sickness.

Shulkin. J (2014) conducted a study to assess obstetrician-gynecologists treatment of nausea and vomiting of pregnancy and to compare it with recommendations in American College Of Obstetrician and Gynecologists (ACOG) bulletin. A questionnaire was mailed to 1075 ACOG fellows who constitute Collaboratory Ambulatory Research Network. The result was most frequently recommended treatment for patient with moderate to severe nausea were eat frequent, small meals 93%, snack on soda crackers 68.5%and take vitamin B6 plus doxylamine 67.18%.Respondents who read the bulletin were more likely to prescribe vitamin B6 84% vs.73.8%, p=0.005 and vitamin B6 plus doxylamine 70.9% vs.59.3%, p=0.009.The conclusion was that obstetrician gynecologist treatment and prescribing practices generally follow ACOG recommendations.

Rosen. T, DE, et. al, (2013) had evaluated the effectiveness of low level nerve stimulation therapy over the volar aspect of wrist at the P6 point to treat nausea and vomiting in early pregnancy. Pregnant volunteers n=230 with mild to severe nausea vomiting between 6 and 12 weeks gestation participated in a 21 days trial. The outcome was measured by Rhodes Index of Nausea, Vomiting, and Retching. Pretreatment Rhodes index scores for entire population demonstrated no significant difference between study and control group. The time averaged change in Rhodes index total experience of 6.48 for the study group was better than control value of 4.6 at the level of p=.02.Researcher concluded that nerve stimulation therapy is effective in reducing nausea vomiting in the first trimester of pregnancy.

Boon.H, et. al, (2012) examined the use of Complementary and Alternative Medicine (CAM) among 70 women suffering from nausea vomiting during pregnancy. Samples were asked to fill a questionnaire which includes demographic data as well as use of CAM. Results were 61% reported using acupressure,21% of those reported using CAM, 8% their physician or pharmacist and 71% discussed the usage with family, friends other health professionals. The Researcher concluded that Complementary and Alternative Medicine is effective in reducing nausea, vomiting in the first trimester of pregnancy.

C) Studies related to use of ginger in reducing nausea and vomiting

Estelle Viljoen, et. al, (2014) conducted a systematic review and meta-analysis of the effect and safety of ginger in the treatment of pregnancy-associated nausea and vomiting. The primary objective was to assess the effectiveness of ginger in treating NVP. The secondary objective was to assess the safety of ginger during pregnancy. Randomized controlled trials (RCTs) of the efficacy of orally administered ginger, as treatment for NVP in pregnant women at any stage of pregnancy, published in English, were included. Two researchers independently extracted data and assessed trial quality. RevMan5 software (Cochrane Collaboration) was used for data analysis. $p < 0.05$ was considered statistically significant. Twelve RCTs involving 1278 pregnant women were included. Ginger significantly improved the symptoms of nausea when compared to placebo (MD 1.20, 95% CI 0.56-1.84, $p = 0.0002$, $I^2 = 0\%$). Ginger did not significantly reduce the number of vomiting episodes during NVP, when compared to placebo, although there was a trend towards improvement (MD 0.72, 95% CI -0.03-1.46, $p = 0.06$, $I^2 = 71\%$). Subgroup analyses seemed to favor the lower daily dosage of <1500 mg ginger for nausea relief. Ginger did not pose a significant risk for spontaneous abortion compared to placebo (RR 3.14, 95% CI 0.65-

15.11, p = 0.15; I^2 = 0%), or to vitamin B_6 (RR 0.49, 95% CI 0.17-1.42, p = 0.19, I^2 = 40%). Similarly, ginger did not pose a significant risk for the side-effects of heartburn or drowsiness.

Thomas, et. al, (2014) performed a meta-analysis of clinical trials using ginger for NVEP as published in Pub Med and EMBASE, CINAHL, Cochrane Library, and all EBM reviews. Studies satisfying 3 criteria were selected: (1) randomized placebo-controlled design; (2) use of ginger or Z. officinale; and (3) extractable data on improvement in NVEP. Data were synthesized into pooled odd ratios based on the random effects model, and results were tabulated with the aid of Forest plots. Identified 135 potentially relevant records; only 6 studies met the final criteria. Of the total 508 subjects, 256 and 252 subjects were randomly assigned to receive ginger and placebo, respectively. The use of ginger (~1 g daily) for at least 4 days is associated with a 5-fold likelihood of improvement in NVEP. Heterogeneity among the clinical studies were acknowledged in the final interpretation of results.

Jean Harvey (2013) had recently confirmed the effectiveness of ginger in decreasing nausea during pregnancy. Sixty-seven pregnant women in Iran who were experiencing nausea and vomiting were given 250 mg of ginger 4 times a day, while the control group was given placebo. The women taking the gingerroot demonstrated 85% improvement, while the placebo group reported a 56% improvement. A significant decrease in the frequency of vomiting occurred among the ginger group: 50% versus 9% for the placebo group. The clinicians concluded that ginger is an effective tool for decreasing nausea and vomiting during pregnancy.

Ozgoli.G ,et. al, (2012) had confirmed the effectiveness of ginger in decreasing nausea during pregnancy. Sixty-seven pregnant women in Iran who were experiencing nausea and vomiting were given 250 mg of ginger 4 times a day, while

the control group was given placebo. The women taking the gingerroot demonstrated 85% improvement, while the placebo group reported a 56% improvement. A significant decrease in the frequency of vomiting occurred among the ginger group: 50% versus 9% for the placebo group. The clinicians concluded that ginger is an effective tool for decreasing nausea and vomiting during pregnancy.

Crowther.C (2014) had done a study to examine the effect of 1.05g of ginger or 75mg of vitamin B6 per day were compared using randomized double blind design among 291 South Australian women less than 16 weeks pregnant. Women took either treatment daily for 3 weeks. Results shown ginger was equivalent to vitamin B6 in reducing nausea at the level of mean difference 0.2; 90% confidence interval CI-0.3, 0.8, retching at the level of mean difference=0.3, 90% CI-0.0,0.6 and vomiting at the level of mean difference 0.5, 90% CI=0.0.0.9.Researchers concluded that ginger is as effective as vitamin B6 in controlling nausea vomiting and dry retching in early pregnancy**.**

Eden (2013) reported that the effectiveness of ginger extract on symptoms of morning sickness among 120 women who were less than 20 weeks pregnant in a double blind randomized placebo controlled trial. They received 125mg of ginger extract or placebo four times per day for four days. The result was that the nausea experience score was significantly less for ginger extract group relative to placebo after the first day of treatment and this difference was observed for every treatment**.**

Sontokke, et. al, (2012) conducted a study to assess the effectiveness of ginger as an antiemetic in nausea vomiting induced by chemotherapy. Patients were randomly assigned to receive one of the three antiemetic; ginger, metaclopromide and ondasterone. Results were complete control of nausea was achieved in 62% of patients on ginger, 58%with metaclopromide and 86% with ondasterone. Researchers

concluded that powdered ginger root was effective in reducing nausea and vomiting and the antiemetic property of ginger was found to be equal of metaclopromide.

Anaesth.J (2012) performed a systematic review of the evidence from randomized controlled trails for or against the efficacy of ginger for nausea and vomiting .6 studies met all inclusion criteria and were reviewed. 3 on post operative nausea and vomiting were identified and two of these suggested that ginger was superior to placebo and equally effective as metaclopramide. The pooled absolute risk reduction for the incidence of post operative nausea however indicated a non-significant difference between the ginger and placebo groups for ginger 1 g taken before operation (absolute risk reduction 0.052). One study was found for each of the following condition: sea sickness, morning sickness and chemotherapy induced nausea. These studies collectively favored ginger over placebo.

Fischer.w (2014) had done a study to evaluate the efficacy of powdered ginger root in the treatment of hyperemesis gravidarum among 30 women. Each women swallowed capsules containing either 250mg ginger or lactose q.i.d during first four days of treatment. The severity of symptoms before and after each period was evaluated.19 women 70.4% stated preference to the period in ginger had been given at the level of p=0.003.More objectively assessed by relief scores a significantly greater relief of the symptoms was found after ginger treatment compared to placebo at the level of p=0.035, suggesting that powdered ginger in daily dose of 1g for four days is best in eliminating symptoms of hyperemesis gravidarum.

CONCEPTUAL FRAMEWORK

A conceptual framework can be defined as a set of concept and assumptions that integrate them into a meaningful configuration (polit and Beck 2012).

A conceptual framework facilitates communication and provides systematic approach to nursing research, educational status, administration and practice.

The conceptual framework selected for this project is Wiedenbach's Helping Art Model for Clinical Pratices (1964). It consists of three factors central purpose, prescription, and realities of the situation.

1) CENTRAL PURPOSE

It refers to what the nurse want to accomplish. It is an overall goal towards which a nurse strives.

In this study the central purposes of the researcher is to reduce the morning sickness among first trimester primi ante natal mothers.

2) PRESCRIPTION

It refers to plan of care for a client. It will specify the nature of action that will fulfill the nurse central purpose.

In this study, prescription is administering ginger tea to the first trimester primi ante natal mothers.

3) REALITY

It refers to the physical, psychological, emotional and spiritual factors that come into play in a situation involving nursing actions.

The five realities identified by wiedenbach are agent, recipient, goal, means, and framework.

The conceptualization of nursing practice according to this theory consists of three steps as follows,

- Step-I: Identifying the need for help
- Step-II: Ministering the needed help
- Step-III:Validating that the need for help was met.

STEP-I: IDENTIFYING THE NEED FOR HELP

The investigator identifying the need for reducing morning sickness among first trimester primi ante natal mothers through collecting the data of demographic variables and Modified Rhodes Index of Nausea, Vomiting and Retching scale.

STEP-II: MINISTERING THE NEEDED HELP

After identifying the need for reducing morning sickness among first trimester primi ante natal mothers, 500gms of ginger tea administered twice daily for 4days.

- **Agent** **:** Investigator
- **Recipient** **:** First trimester primi ante natal mothers at primary health centre in Guziliyamparai and Eriodu.
- **Goal** **:** Reducing morning sickness.
- **Mean activities** **:** Administering 500gms of ginger tea twice daily for 4 days.
- **Frame work** **:** Primary health centre in Guziliyamparai and primary health centre in Eriodu.

STEP-III: VALIDATING THAT THE NEED FOR HELP WAS MET

It is accomplished by means of post test on assessment of morning sickness among first trimester primi ante natal mothers using and Modified Rhodes Index of Nausea, Vomiting and Retching scale.The pre test and post test on morning sickness will be compared. The effectiveness of ginger tea among first trimester primi ante natal mothers in experimental group show reduction of morning sickness where as the first trimester primi ante natal mothers in control group will show no significant change in morning sickness.

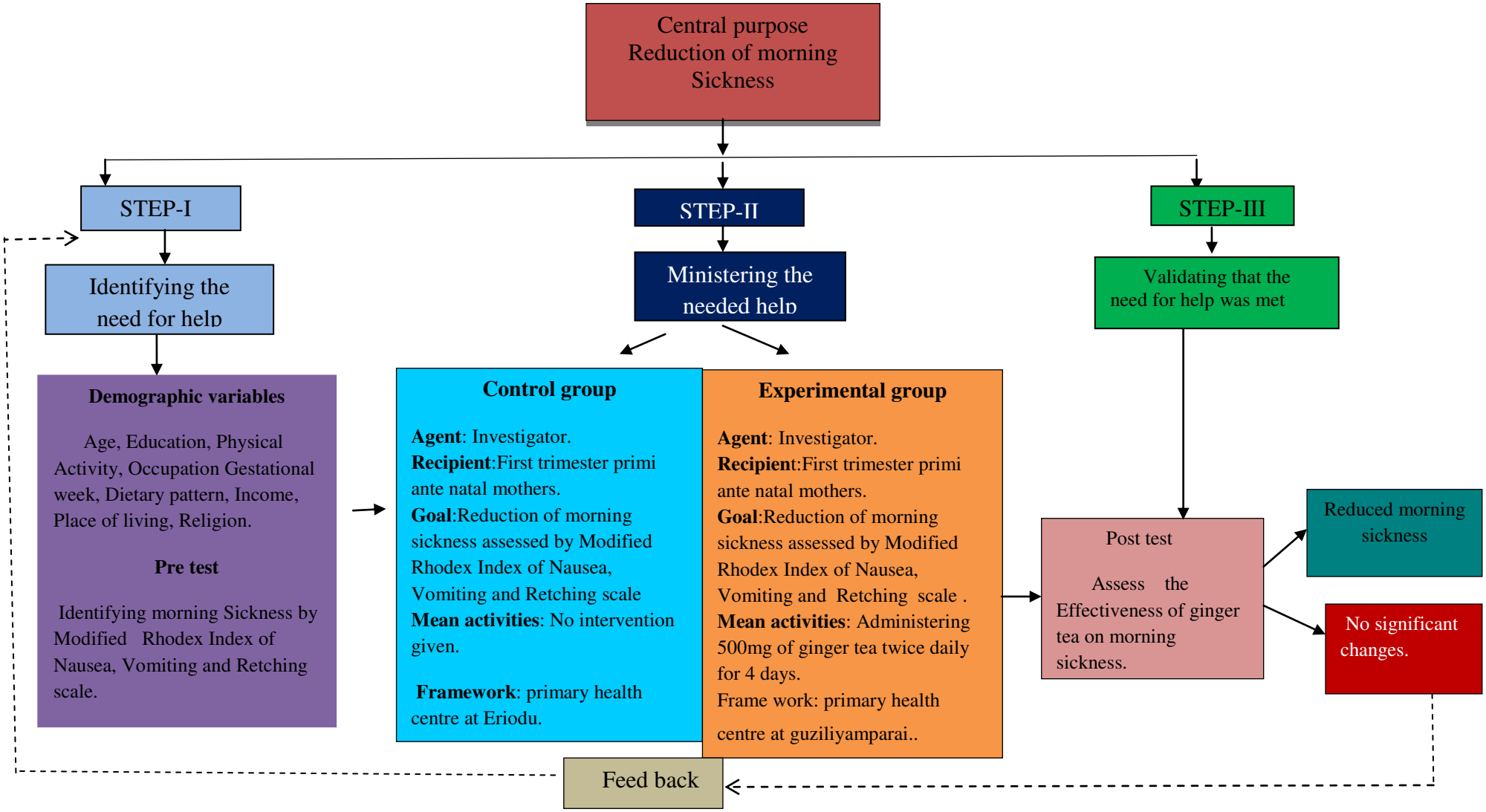

Figure 1. Conceptual Frame work Based On Wieden bach"s Helping Art of Clinical Nursing Theory (1964)

CHAPTER-III

METHODOLOGY

The methodology of research indicates the general pattern of organizing, the procedure for gathering valid and reliable data for the problem under investigation. (Polit and Beck, 2013)**.**

This chapter dealt with the research approach, research design, variables, setting of the study, population, sample, sampling technique, criteria for sample selection, ,data collection tool, techniques, validity of the tool, reliability of the tool, pilot study, data collection procedures, plan for data analysis and ethical considerations.

RESEARCH APPROACH:

The investigator has adopted a quantitative evaluative approach because the aim of the investigator was to determine the effectiveness of ginger tea administration on reducing morning sickness among first trimester primi ante natal mothers.

RESEARCH DESIGN:

Research design is the blue print for conducting a study maximizes control over factors that could interfere with the validity of the findings guides the planning and implementation of a study in a way that is most likely to achieve the intended goal (Sharma, 2014).

The research design selected for this study was quasi experimental non-randomized control group pre test post test design to measure the effectiveness of Ginger tea.

Diagrammatic representation.

Study subjects	Pre test	Manipulation	Post test
Experimental group	**O_1**	**X**	**O_2**
Control group	**O_1**	**-**	**O_2**

O_1 - Represents pre test level of morning sickness measured by using modified Rhodes Index of Nausea, Vomiting and Retching scale.

X - Represents the administration of ginger tea

O_2- Represents post test level of morning sickness measured by using modified Rhodes Index of Nausea, Vomiting and Retching scale.

VARIABLES OF THE STUDY:

Dependent variable

Morning sickness among first trimester primi antenatal mothers.

Independent variable

Ginger tea

SETTING OF THE STUDY:

Setting is the physical location and condition in which data collection takes place in this study (Polit, 2009). The Study was conducted at selected primary health centre in dindigul district. The study was conducted in primary health centre at Guziliyamparai will be selected for experimental group and primary health centre at Eriodu will be selected for control group. Guziliyamparai primary health centre is situated around 35km and Eriodu primary health centre is situated around 22km from sakthi college of nursing. The settings of both primary health centre are similar in facilities such as well equipped labor room, ante natal ward, post natal ward..

POPULATION OF THE STUDY:

Population is the entire set of individual or subjects having same common characteristics (Polit, 2012). The target population is the entire population in which a researcher interested and to which he or she would like to generalize the study results (Polit, 2012).

The target population selected for this study was first trimester primi gravida mothers at selected primary health centre in dindigul district.

Accessible population was first trimester primi gravida mothers with mild, moderate, and severe morning sickness at selected primary health centre in dindigul district.

SAMPLE:

Samples refer to the subset of the population comprising those selected to participate in a study (Polit, 2012). In this study the sample compromised of first trimester primi antenatal mothers with morning sickness who fulfilled the inclusion criteria of the study.

SAMPLE SIZE

Number of subjects, events, behavior or situations that are examined in a study (Sharma, 2014).

A total of 60 first trimester primi antenatal mothers with morning sickness was chosen for the present study.

- **30 samples in experimental group**
- **30 samples in control group**

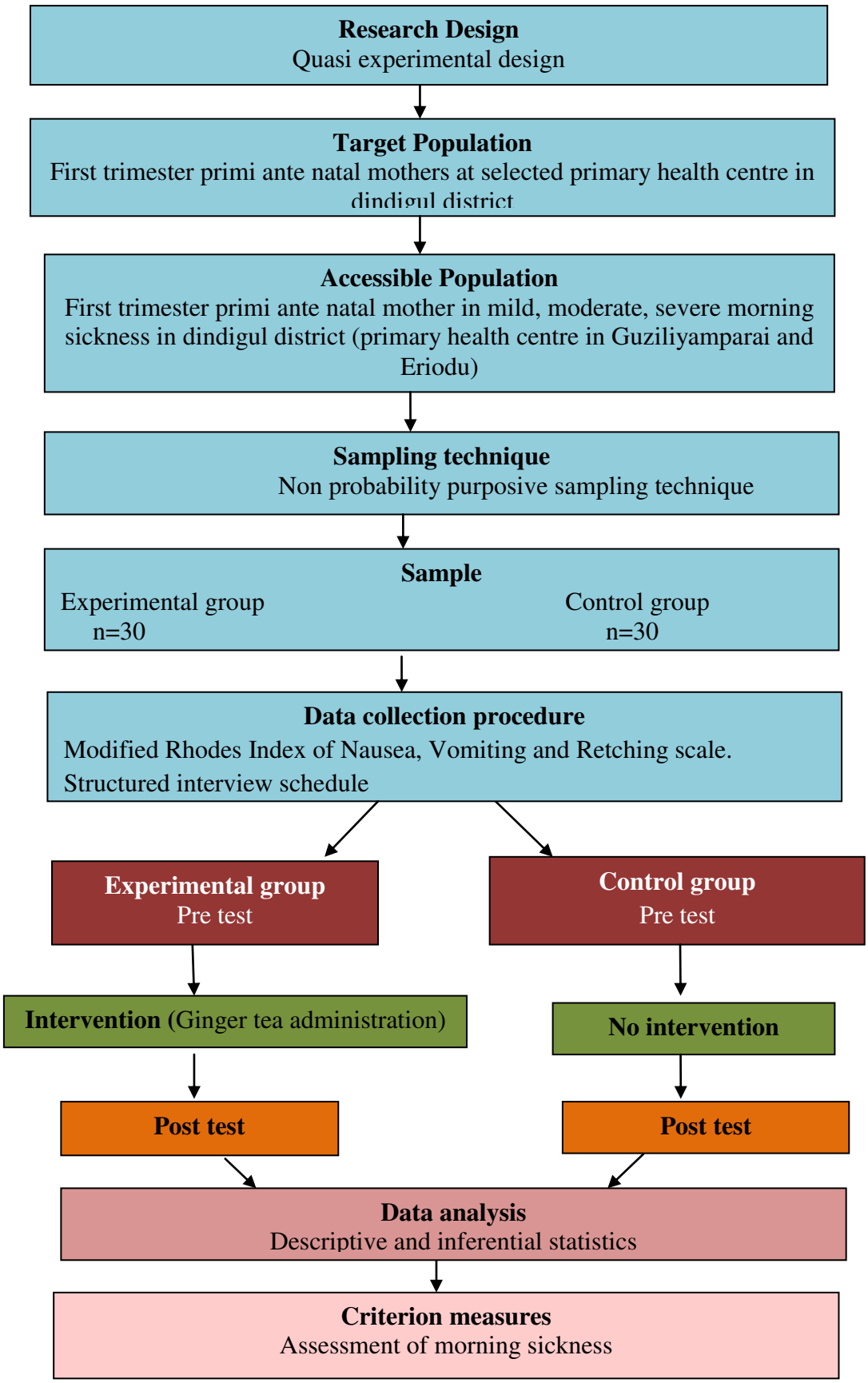

Figure 2. Schematic Representation of research methodology.

SAMPLING TECHNIQUE:

Sampling techniques refers to the process of selecting a representative part of a population (Sharma, 2014). The researcher wants to study the first trimester primi ante natal mothers with mild, moderate, and severe morning sickness.

The sampling technique adopted for this study was purposive sampling technique.

CRITERIA FOR SAMPLE SELECTION:

Inclusion criteria

The criteria designating the specific attributes of the target population, by which people are selected for inclusion in a study (Polit, 2012). The study included the samples with the following traits.

Primi antenatal mothers who:

1. are in first trimester.
2. have nausea and vomiting.
3. can read and understand Tamil, English.

Exclusion criteria

Sampling criteria specifying characteristics that a population does not have (Polit, (2012). The study excluded the following characteristics;

Primi antenatal mothers who;

1. are not available during data collection.
2. are having other obstetric problems.
3. are not willing to participate in the study.

DATA COLLECTION TOOLS AND TECHNIQUES

Tool development is a complex and time consuming process. It consists of defining the construct to be measured, formulating the items, assessing the items for content validity and conducting the pilot study (Polit, 2012). The following instruments were prepared used by the investigator for the data collection.

S.NO	TOOLS	TECHNIQUES	PURPOSE
1.	Demographic Variables	Interview technique	Assessment of demographic data of first trimester primi antenatal mothers with morning sickness.
2.	Modified Rhodes Index of Nausea, Vomiting and retching Scale.	Self report	Assess the level of morning sickness.

DESCRIPTION OF THE TOOL:

The study had two tools

Tool: I

Demographic and clinical variables such as age in years, educational status, physical activity, occupation, dietary pattern, family income, place of living, religion, and gestational week of first trimester primi antenatal mothers.

Tool: II

Modified Rhodes Index of Nausea, Vomiting and Retching scale. It's a self administered tool which contain 8 items and is a total symptom experience scale. The scoring ranging from 0-32. The Modified Rhodes Index of Nausea, Vomiting and Retching scale was explained to the samples and asked to respond to the scale.

SCORING INTERPRETATION:

Tool: I

Demographic variables

Demographic data and obstetric history was collected from first trimester primi antenatal mothers by interview method. It was used for analysis.

Tool: II

It consists of Modified Rhodes Index of Nausea, Vomiting and Retching scale, which had given the scoring from 0 to 32. The score was interpreted as follows:

Morning sickness	Scores
• Mild	0-8
• Moderate	9-16
• Severe	17-24
• Profound	25-32

VALIDITY OF THE TOOL:

Validity of the tool was obtained from four experts in the field of nursing and one from the field of medicine.

RELIABILITY OF THE TOOL:

The Modified Rhodes Index of Nausea, Vomiting and Retching scale is a well accepted instrument to measure the severity of morning sickness.

PILOT STUDY:

Pilot study was conducted among first trimester primi ante natal mother with morning sickness to assess the feasibility and practicability of the study. The finalized

tool was administered. It was found feasible for first trimester primi ante natal mother. They can easily follow the instruction and co-operated. It also helped the investigator to select suitable statistical methods.

PROCEDURE FOR DATA COLLECTION:

Step: I

The purpose of the study was explained and oral consent was obtained from the subjects before the procedure. The researcher administered the questionnaire to assess the demographic variables and Modified Rhodes Index of Nausea, Vomiting and Retching scale questionnaire to assess the degree of morning sickness in the pre-test.

Step: II

30 samples were selected from selected primary health centre in dindigul district. In this study ginger tea was prepared by boiling 300ml of water over medium to high heat and then added 500mg ginger root, allowed it to boil for 3-5mts removed from heat and strained. Added sugar for taste (1/2 teaspoon) and served the mothers twice a day for four days.

Step: III

The post test score was done after 4 days of the intervention to assess level of reduction of morning sickness using the same tool, and the data was kept confidential.

STASTICAL ANALYSIS:

Data were analyzed by using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics.

Descriptive statistics

Frequency, percentage, means, standard deviation was planned to use for the analysis of pre test and post test assessment.

Inferential statistics

Chi-square test was used to determine the association between the pretest and the demographic variables.

HUMAN RIGHTS PROTECTION:

Prior to the data collection,written permission was obtained from the Block medical officer of Guziliyamparai and Eriodu primary health center at dindigul district.Following which concern doctors and staff permission was taken prior to proceed with conduction of the study.

Oral consent was obtained from the first trimester primi ante natal mothers those who are willing to participate in this study.

CHAPTER –IV

DATA ANALYSIS AND INTERPRETATION

"All meanings, we know, depend on the key of interpretation".

-George Eliot

The process of evaluating data using analytical and logical reasoning to examine each component of the data provided. This form of analysis is just one of the many step that must be completed when conducting a research experiment. Data from various source is gathered, reviewed, and then analyzed to form some sort of finding or conclusion. There are a variety of specific data analysis method, some of which include data mining, text analytics, business intelligence and data visualizations.

Analysis is a process of organizing and synthesizing data so as to answer research questions and test hypothesis. (Polit and Beck, 2010)

This chapter describes analysis and interpretation of data collected to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers in selected primary health centre at dindigul district.The collected data was organized, analyzed and tabulated by using descriptive and inferential statistics. These datas were represented as follows.

1. Data on demographic variables of first trimester primi ante natal mothers in experimental and control group.
2. Data on level of morning sickness among first trimester primi ante natal mothers in experimental and control group.
3. Data on effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers.

4. Data on association between the pre test level of morning sickness in experimental group and their selected demographic variables.
5. Data on association between the pre test level of morning sickness in control group and their selected demographic variables.

1. Data on demographic variables of first trimester primi ante natal mothers in experimental and control group

Table: 1 Frequency and percentage distribution of first trimester primi ante natal mothers according to their Demographic variables.

(N=30+30)

S.no	Demographic variables	Experimental group		Control group	
		Frequency	**Percentage**	**Frequency**	**Percentage**
1.	**Age (in years):**				
	a) 21-25 years	18	60	11	36.7
	b) 26-30 years	12	40	18	60
	c) 31-35 years	0	0	1	3.3
2.	**Educational status**				
	a) Degree	6	20	9	30
	b) Primary school	24	80	21	70
	c) Un educated	0	0	0	0
3.	**Physical activity**				
	a) Sedentary	18	60	13	43.3
	b) Moderate	6	20	12	40
	c) Heavy	6	20	5	16.7
4.	**Occupation**				
	a) Unemployed	16	53.3	9	30
	b) Daily waged workers	10	33.3	14	46.7
	c) Professional	4	13.3	7	23.3
5.	**Gestational week**				
	a) 1-4 weeks	0	0	1	3.3
	b) 5-8 weeks	11	36.7	14	46.7
	c) 9-12 weeks	19	63.3	15	50
6.	**Dietary pattern**				
	a) Vegetarian	2	6.7	5	16.7
	b) Non vegetarian	28	93.3	25	83.3

7.	**Family income**				
	a) Rs.10001 and above	4	13.3	7	23.3
	b) Rs.5001-10000	14	46.7	11	36.3
	c) Rs <5000	12	40	12	40
8.	**Place of living**				
	a) Rural	20	66.7	23	76.7
	b) Urban	10	33.3	7	23.3
9.	**Religion**				
	a) Hindu	10	33.3	12	40
	b) Christian	11	36.7	7	23.3
	c) Muslim	9	30	11	36.7
10.	**Family type**				
	a) Nuclear family	21	70	17	56.7
	b) Joint family	9	30	13	43.3

EXPERIMENTAL GROUP:

The above table shows that among 30samples, with regards to **age** 18(60%) samples belonged to 21-25 years,12 (40%) belonged to 26-30years and no is belonged to 31-35 years.

Regarding **educational status** 6(20%) of them had degree education,24(80%) of them had primary school education, and no one of them is uneducated.

With regards to **physical activity** 18(60%) of them are insedentaryactivity,6(20%) of them are in moderate activity,6(20%) of them are in heavy activity.

Regarding the **dietary pattern** 2(6.7%) of them were vegetarian and 28(93.3%) were non vegetarian.

About **family income** is 4(13.3%) samples income between Rs 10001 and above 14(46.7%) samples income between Rs.5001-10000,12(40%) samples got <5000.

Regarding the **place of living** 20(66.7%) samples were in rural and 10(33.3%) samples are in urban.

With respect to **religion,** 10(33.3%) samples of them belonged to Hindu , 11(36.7%) samples of them belonged to Christian and 9(30%) samples of them belonged to Muslim.

In relation to **family type** 21(70%) of the samples belonged to nuclear family and 9(30%) of the samples belonged to joint family.

CONTROL GROUP:

The above table shows that among 30 samples, with regards to **age** 11(36.7%) samples belonged to 21-15 years, 18((60%) samples belonged to 26-30 years and 1(3.3%) sample belonged to 31-35 years.

Regarding **educational status** 9(30%) of them had degree education, 21(70%) of them had primary school education, and none of them are uneducated.

With regards to **physical activity** 13(43.3%) of them are in sedentary activity, 12(40%) of them are in moderate activity, 5(6.7%) of them are in heavy activity.

With regards to **occupation** un employed were 9(30%), 14(46.7%) were daily waged workers and 5(16.7%) were professional.

In relation to **gestational week** 1(3.3%) of the samples belonged to 1-4 weeks, 14(46.7%) of the samples belonged to 5-8 weeks and 15(50%) of the samples belonged to 9-12 weeks.

Regarding the **dietary pattern** 5(16.7%) of them were vegetarian and 25(83.3%) were non vegetarian.

About **family income** was Rs 10001 and above for 7(23.3%) samples, 11(36.7%) samples income between Rs.5001-10000, 12(40%) samples got <5000.

Regarding the **place of living** 23(76.7%) samples were in rural and 7(23.3%) samples are in urban.

With respect to **religion**, 12(40%) samples of them belonged to Hindu, 7(23.3%) samples of them belonged to Christian and 11(36.7%) samples of them belonged to Muslim.

In relation to **family type** 17(56.7%) of the samples belonged to nuclear family and 13(43.3%) of the samples belonged to joint family.

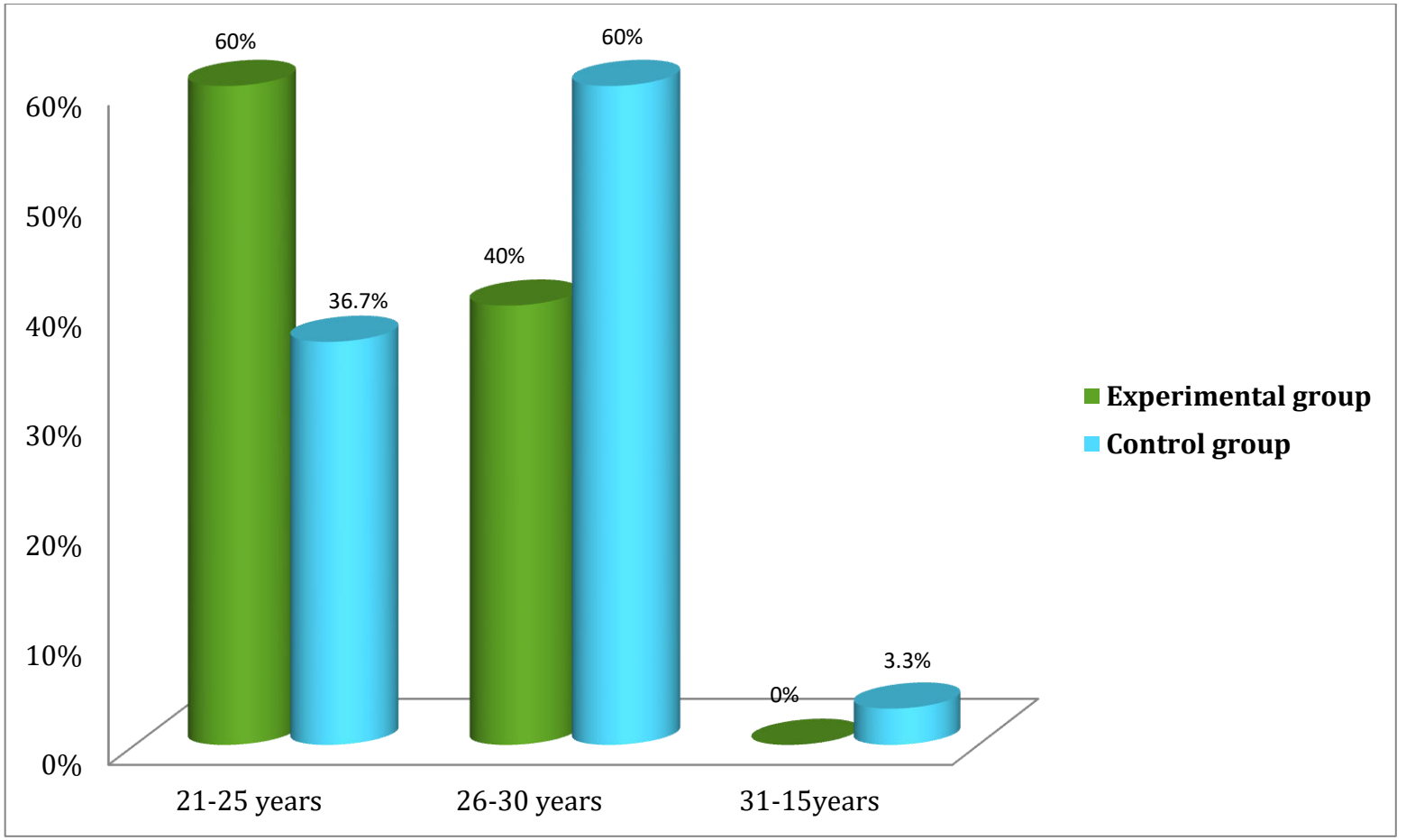

Figure 3.Distribution of subjects based on their age in experimental and control group.

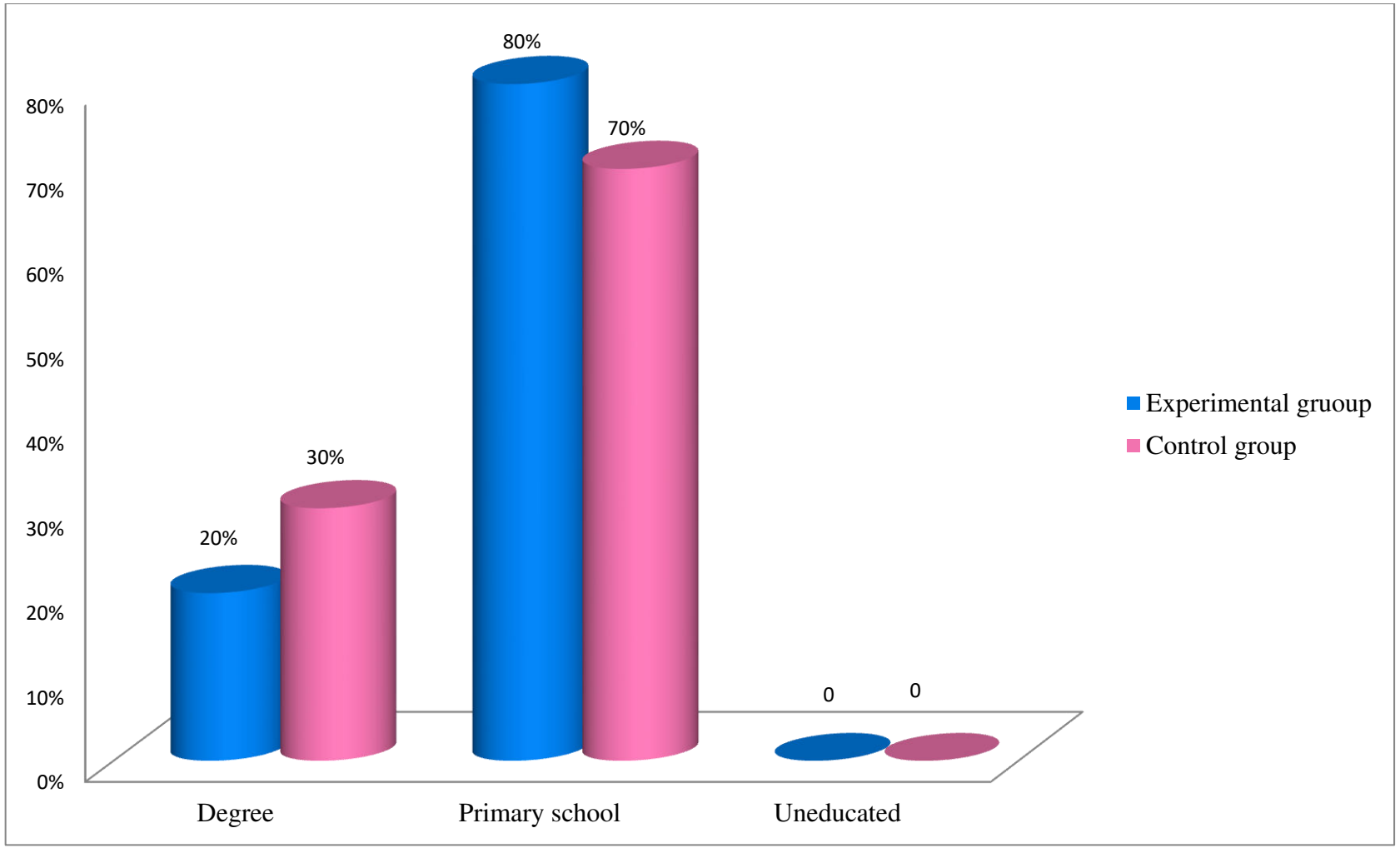

Figure 4.Distibution of subjects based on their educational status in experimental and control group

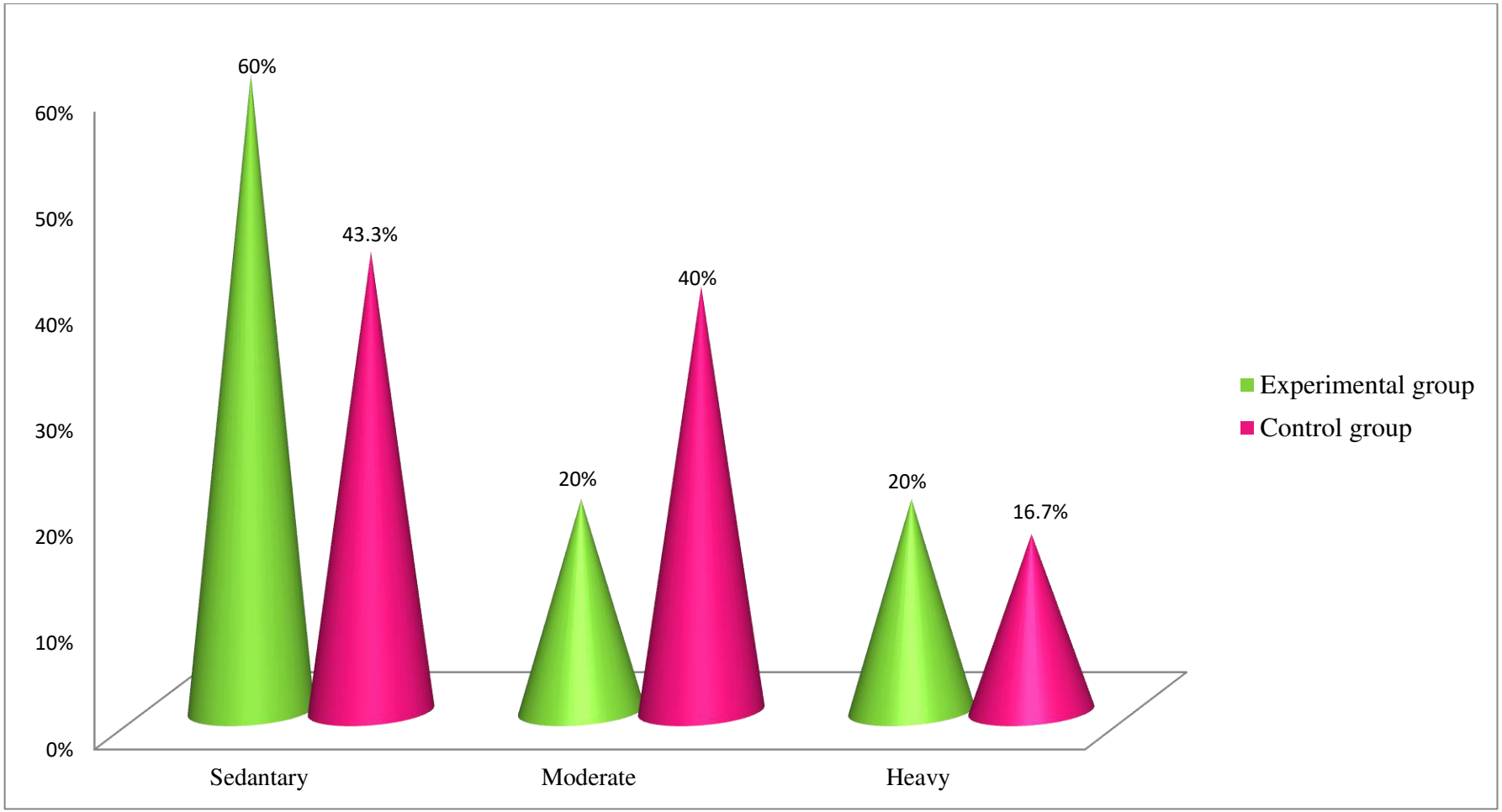

Figure 5. Distribution of subjects based on their physical activity in experimental and control group

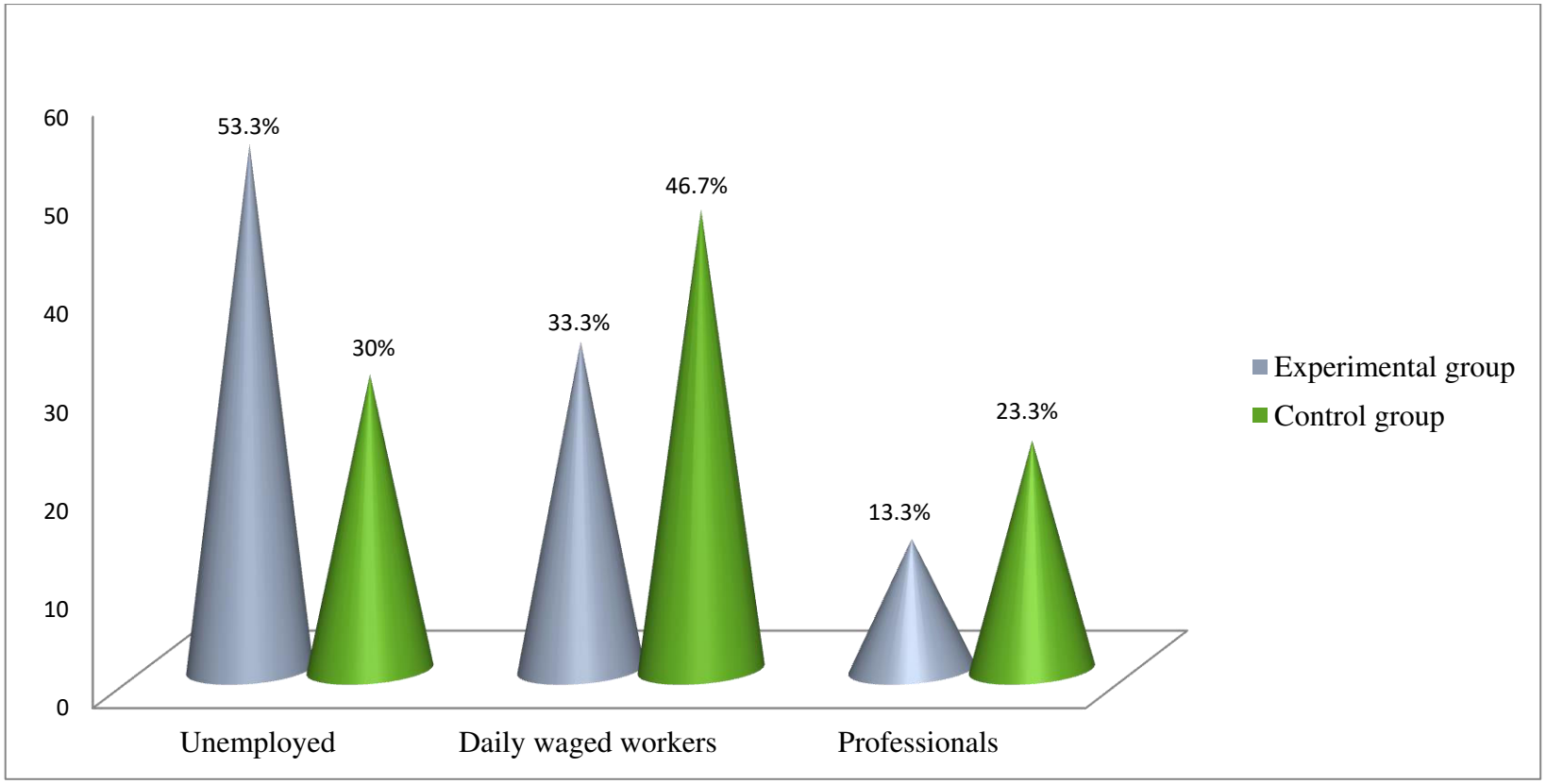

Figure 6.Distribution of subjects based on their occupation in experimental and control group

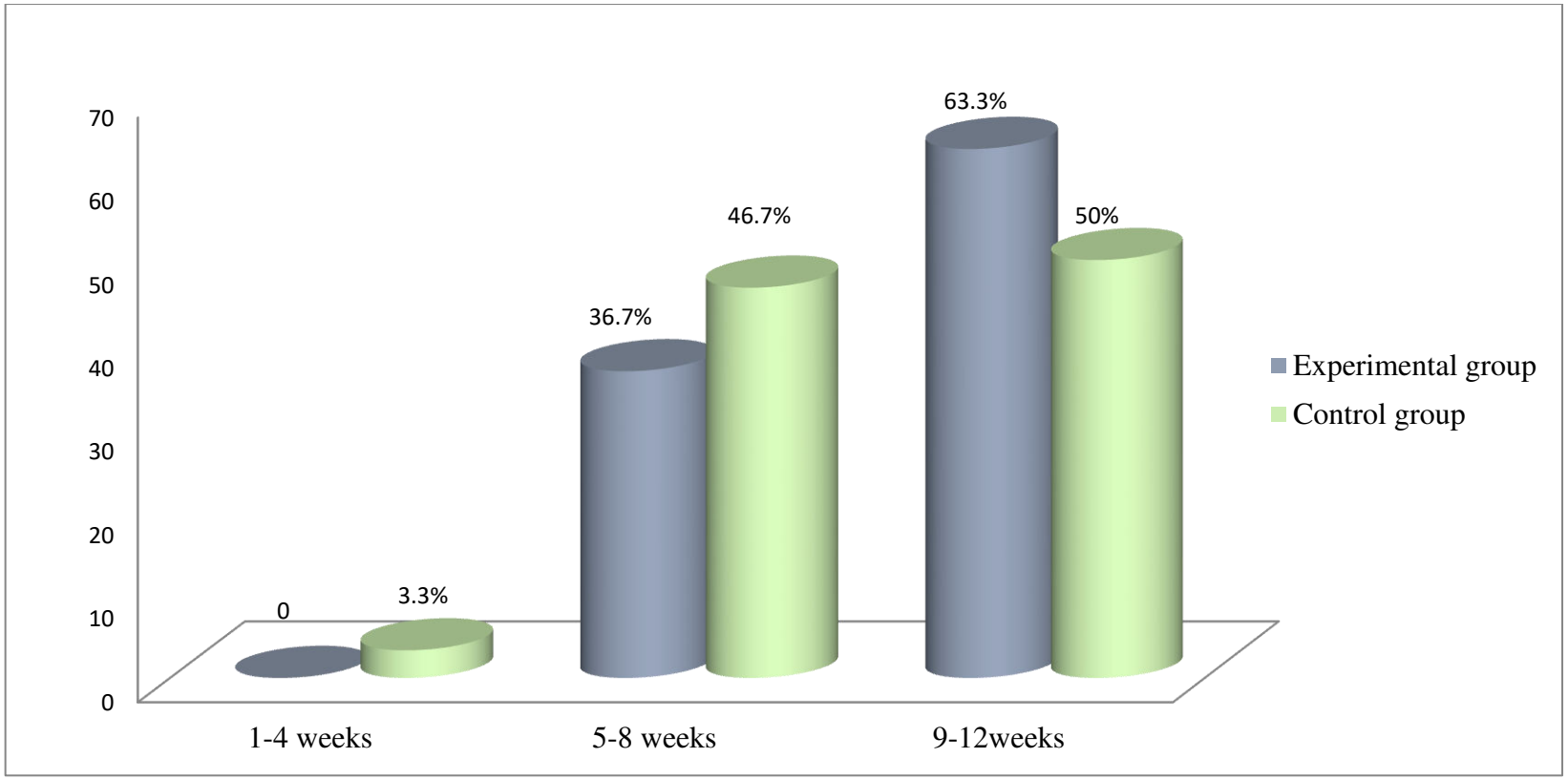

Figure 7. Distribution of subjects based on the gestational week experimental and control group

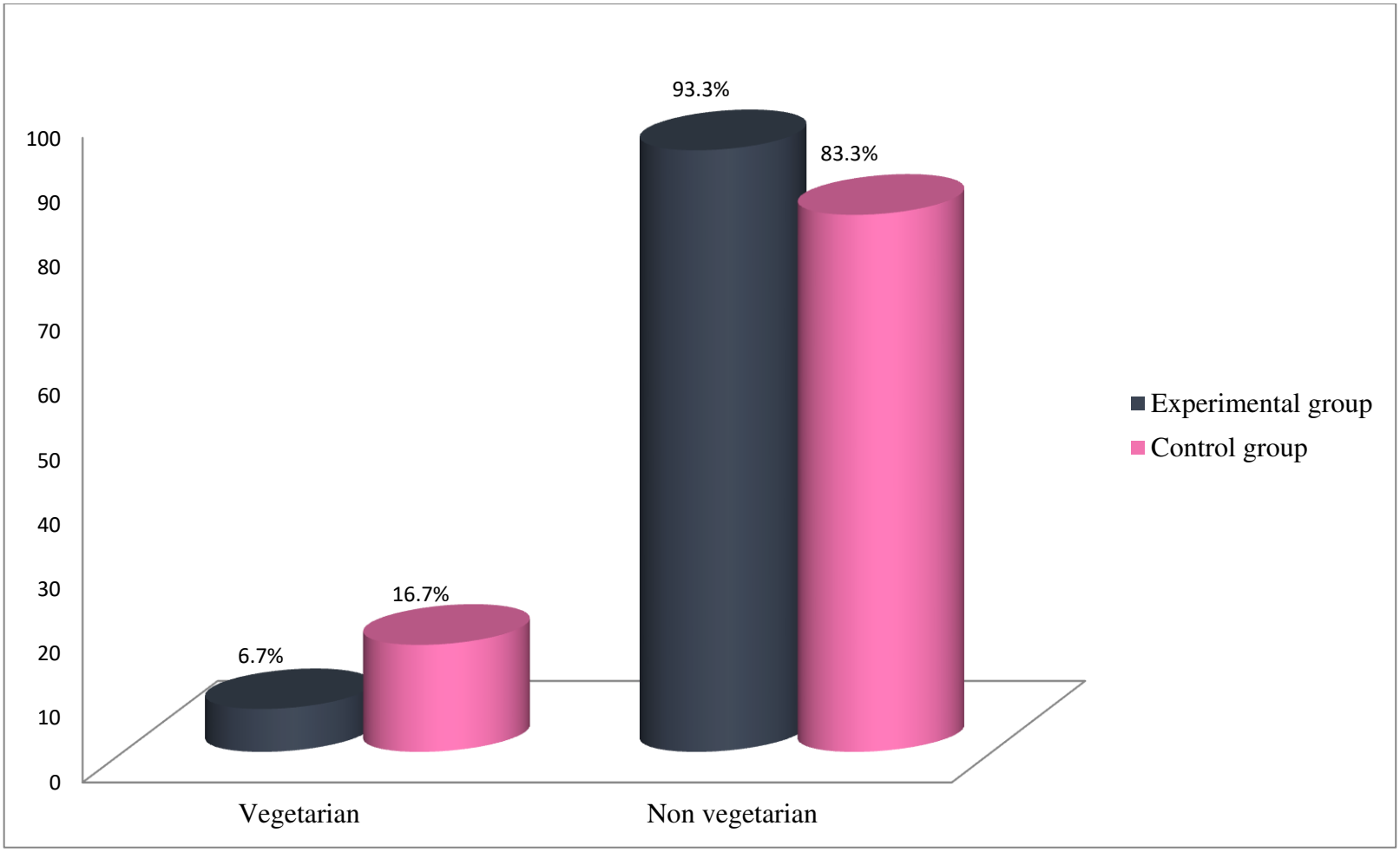

Figure 8. Distribution of subjects based on the dietary pattern in experimental and control group

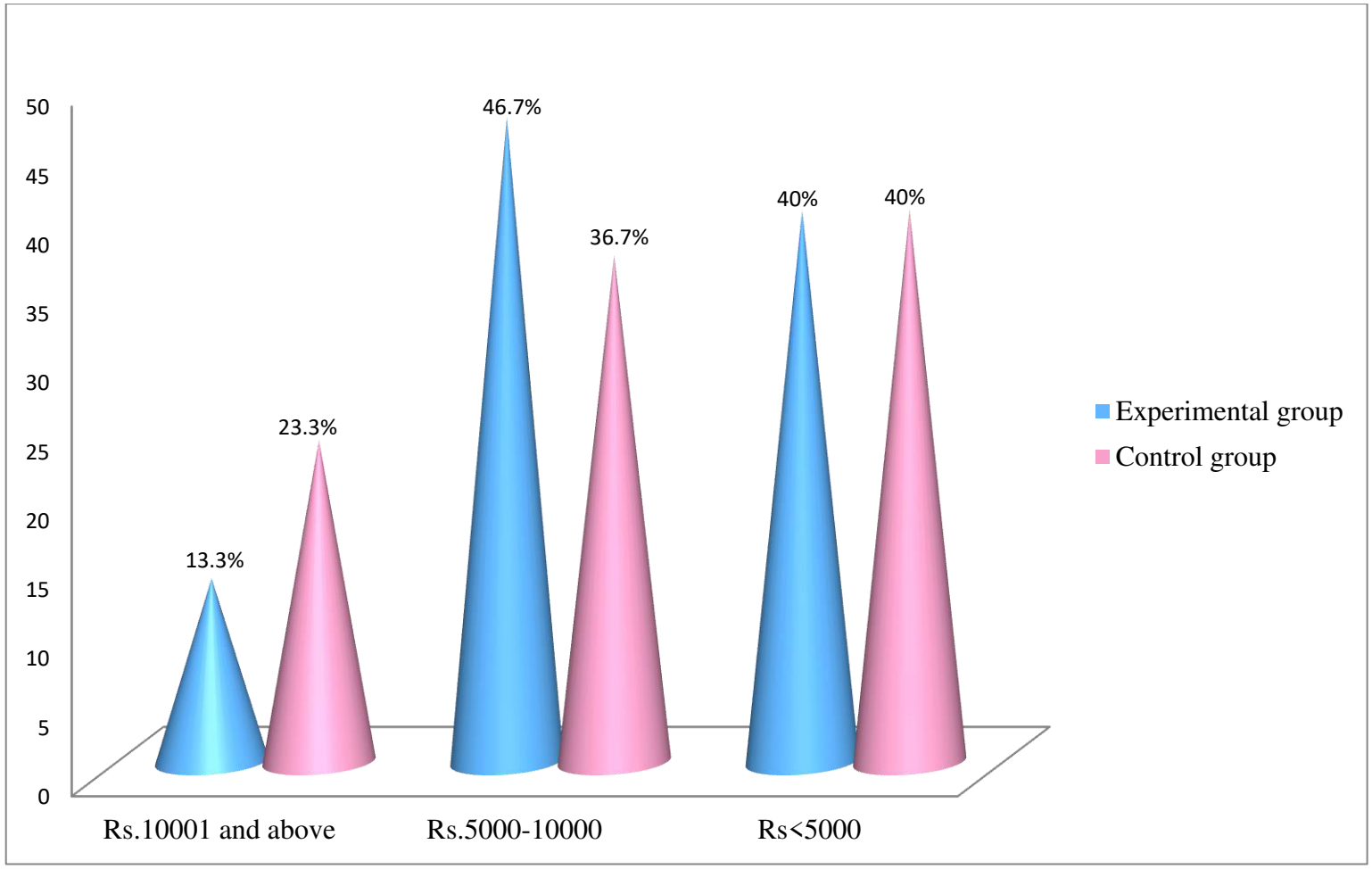

Figure 9.Distribution of subject based on the family income in experimental and control group

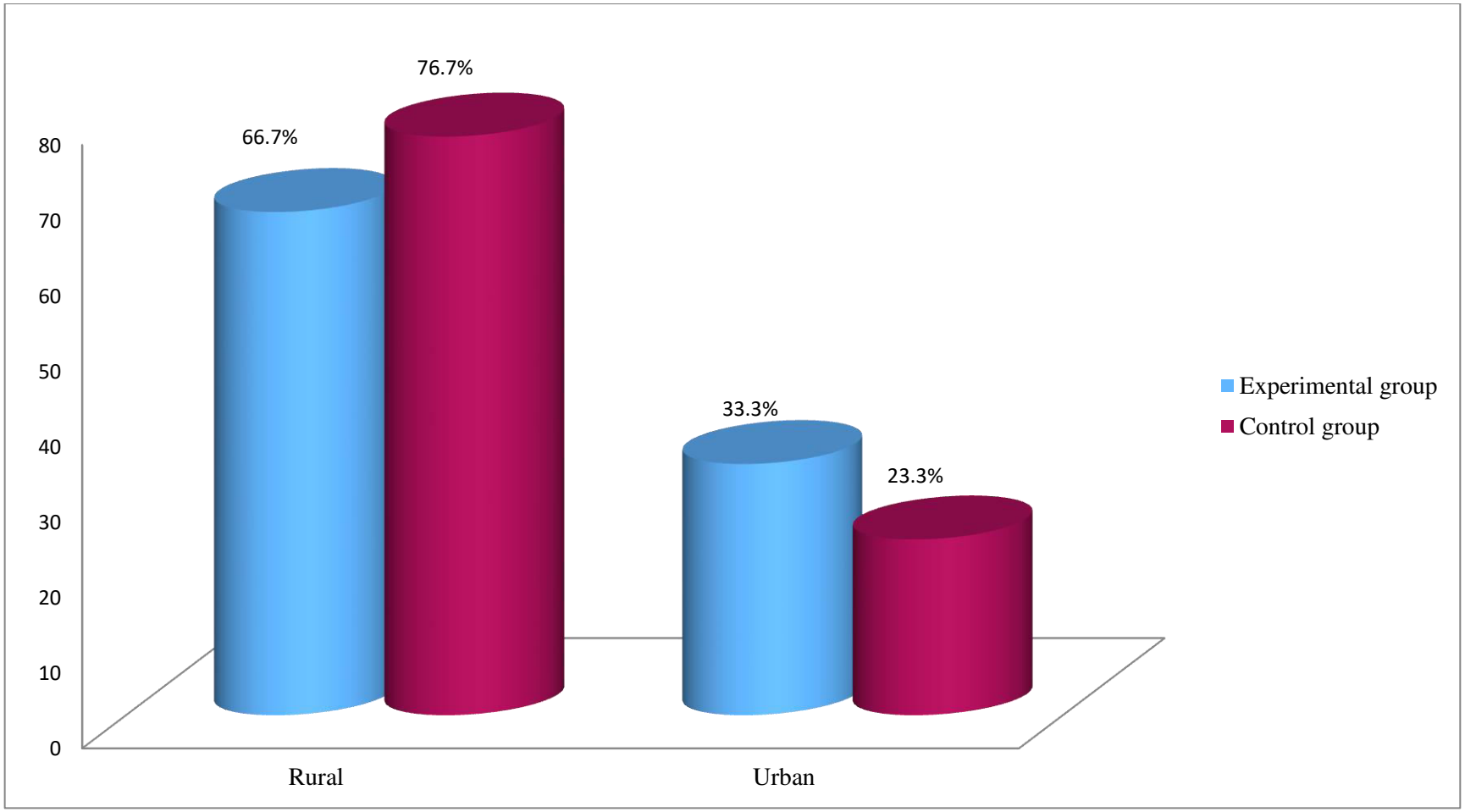

Figure 10. Distribution of subjects based on place of living in experimental and control group

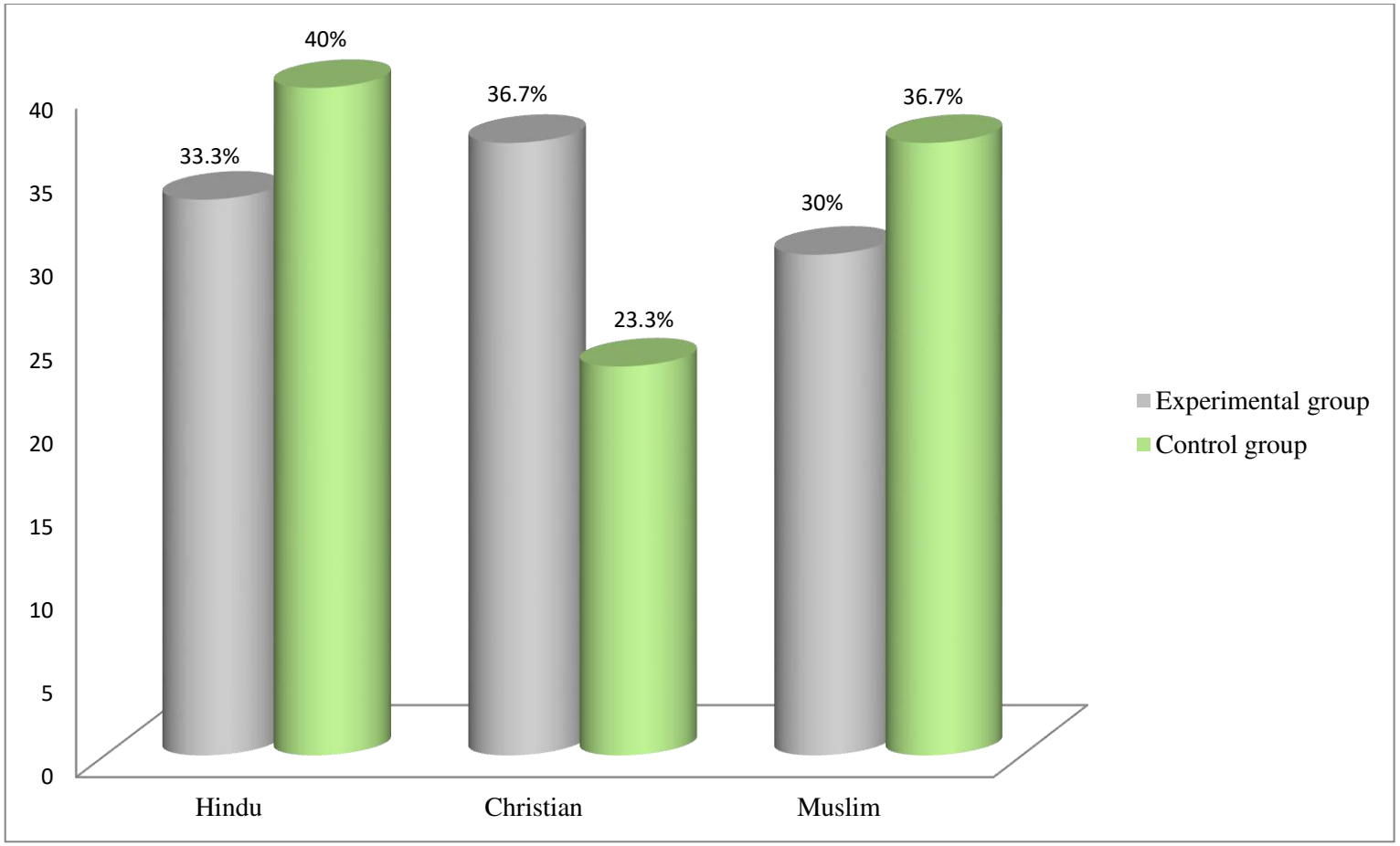

Figure 11.Distribution of subjects based on religion in experimental and control group

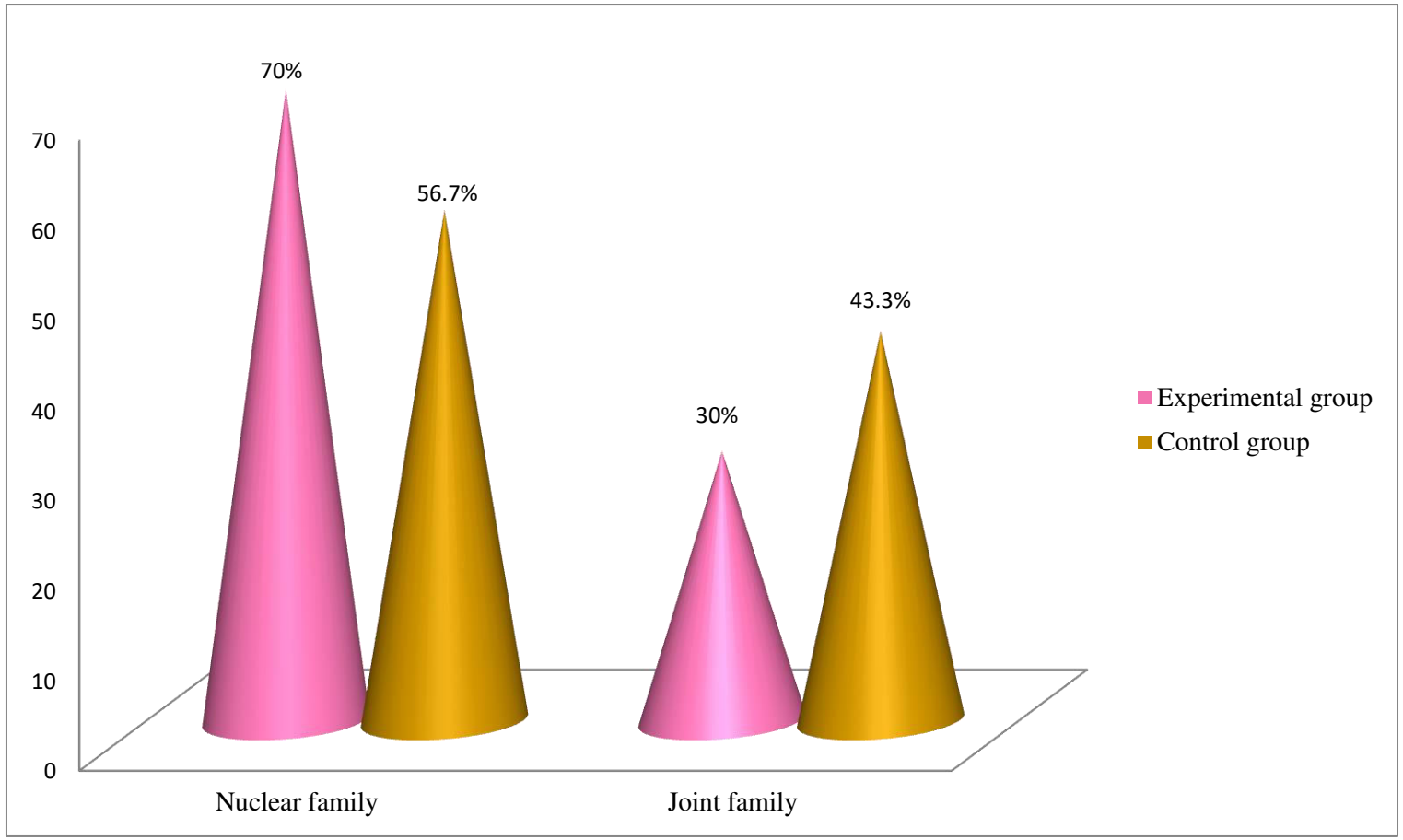

Figure 12.Distribution of subjects based on family type in experimental and control group

2. Data on the level of morning sickness among first trimester primi ante natal mothers in experimental and control group.

Table: 2- Frequency and percentage for level of morning sickness among first trimester primi ante natal mothers in control and experimental group.

(N=30+30)

Level of morning sickness	Control group				Experimental group			
	Pre test		Post test		Pre test		Post test	
	F	%	F	%	F	%	F	%
Mild	2	6.7	1	3.3	3	10	12	40
Moderate	8	26.7	8	26.7	7	23.3	17	56.7
Severe	10	33.3	12	40	14	46.7	1	3.3
Profound	10	33.3	9	30	6	20	0	0
Total	30	100	30	100	30	100	30	100

The above table shows that in control group the per test scores on the level of morning sickness were 2(6.7%)experienced mild sickness,8(26.7%) had moderate sickness,10(33.3%) shown severe sickness and 10 (33.3%) experienced profound sickness. whereas in post test scores on the level of morning sickness were 1(3.3%) experienced mild sickness,8(26.7%) had moderate sickness, 12 (40%) shown severe and 9 (30%) experienced profound sickness respectively.

In experimental group the pre test scores on the level of morning sickness were 3(10%) experienced mild sickness,7(23.3%) had moderate sickness,14(46.7%) shown severe sickness and 6(20%) experienced profound sickness. whereas in post test scores on the level of morning sickness were 12(40%) experienced mild

sickness,17(56.7%) had moderate sickness,1(3.3%)shown severe sickness and no one experienced profound sickness respectively.

This finding reveals that, in experimental group after the ginger tea administration, the level of morning sickness among first trimester primi ante natal mothers were decreased in post test than pre test.

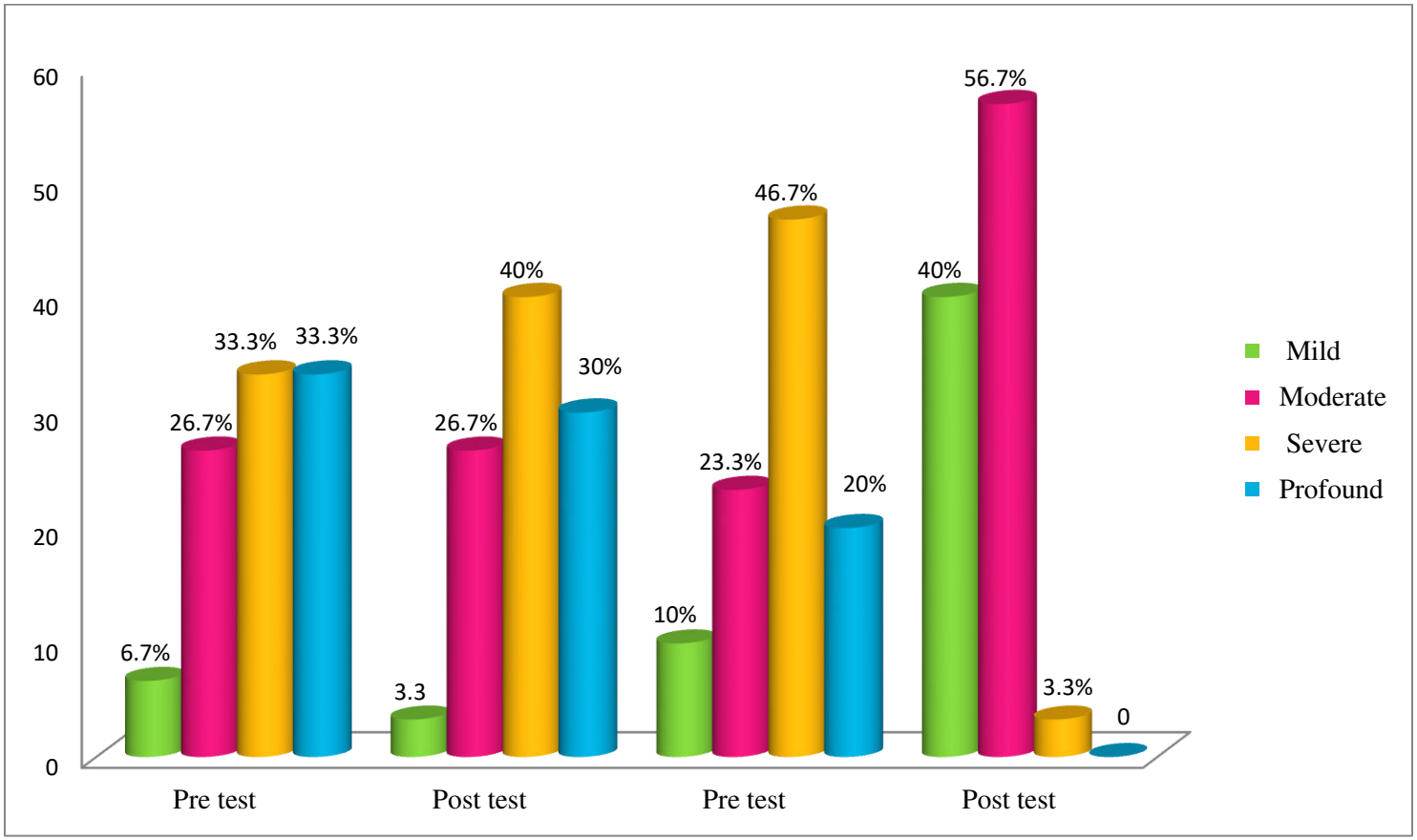

Figure: 1-Distribution of subjects based on the pre test and post test level of morning sickness in control and experimental group

3. Data on effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers.

Table 3:1- Mean, SD and paired 't" –test of pre and post test level of morning sickness in control group.

N=30

Group	Pre test		Post test		Mean difference	't-value'
	Mean	SD	Mean	SD		
Control group	19.9	7.49	20.2	6.72	0.3	1.79

The above table shows that the calculated't value' in the control group was 1.79 which was not significantly at $P<0.05$ level. It can be concluded that there is no much difference in pre test and post test in control group.

Table 3:2-Mean, SD and paired "t" test of pre and post level of morning sickness in experimental group.

N=30

Group	Pre test		Post test		Mean difference	't' value
	Mean	SD	Mean	SD		
Experimental group	18.5	7.16	9.37	4.61	9.13	11.1***

(* - P<0.05, significant and ** -P<0.01 & *** -P<0.001,Highly significant)

The above table shows that the calculated "t" value in the experimental group was 11.1 which was statistically highly significant at P<0.001 level .Hence H_1 is accepted. It can be concluded that ginger tea was effective in reducing the morning sickness among first trimester primi ante natal mothers.

Table 3:3- Mean, SD and unpaired‘t’ test of post test level of morning sickness in control and experimental group.

(N=30+30)

	Control post test		**Experimental post test**		**Mean difference**	**‘t’ value**
	Mean	**SD**	**Mean**	**SD**		
Level of morning sickness	20.2	6.72	9.37	4.61	10.83	7.84***

(* -P<0.05,significant and ** -P<0.01 & *** -P<0.001, Highly significant)

The above table shows that the obtained‘t’ value between control and experimental group is 7.84 which was highly significant at p<0.001 level. Hence H_1 is accepted. It can be concluded that the ginger tea was effective in reducing the morning sickness in experimental group among first trimester primi ante natal mothers than control group.

4. Data on association between the pre test level of morning sickness in control group and their demographic variables.

Table: 4- Frequency and percentage distribution of chi-square value on control group.

N=30

S.no	Demographic variables	Mild		Moderate		Severe		Profound		χ^2	P-value
		F	%	F	%	F	%	F	%		
1	Age (in years):										
	a) 21-25 years	1	3.3	4	13.3	2	6.7	4	13.3		NS
	b) 26-30 years	11	3.3	3	10	8	26.7	6	20	8.01	12.59
	c) 31-35 years	0	0	1	3.3		0	0	0		
2	Educational status										
	a) Degree	0	0	2	6.7	3	10	4	13.3		NS
	b) Primary school	2	6.7	6	20	7	23.3	6	20	2.85	7.82
	c) Un educated	22	0	0	0	0	0	0	0		
3	Physical activity										
	a) Sedentary	1	3.3	3	10	5	16.7	4	13.3		NS
	b) Moderate	11	3.3	4	13.3	3	10	4	13.3	3.85	12.59
	c) Heavy	0	0	1	3.3	2	6.7	2	6.7		
4	Occupation										
	a) Un employed	0	0	2	6.7	4	13.3	3	10		NS
	b) Daily waged	1	3.3	5	16.7	3	10	5	16.7	5.02	12.59
	workers	11	3.3	1	3.3	3	10	2	6.7		
	C) Professional										
5	Gestational week										
	a) 1-4 weeks	0	0	1	3.3	0	0	0	0		NS
	b) 5-8 weeks	0	0	3	10	4	13.3	7	23.3	9.91	
	c) 9-12 weeks	2	6.7	4	13.3	6	20	3	10		12.59
6	Dietary pattern										
	a) Vegetarian	1	3.3	1	3.3	2	6.7	1	3.3	2.2	NS
	b) Non vegetarian	11	3.3	7	23.3	8	26.7	9	30		7.82

7	Family income	0	0	2	6.7	3	10	2	6.7		NS
	a) Rs.10001andabove	1	3.3	3	10	4	13.3	3	10	3.66	12.59
	b) Rs.5001-10000	1	3.3	3	10	3	10	5	16.7		
	c) Rs >5000										
8	Place of living										
	a) Rural	2	6.7	4	13.3	9	30	8	26.7	6.49	NS
	b) Urban	0	0	4	13.3	1	3.3	2	6.7		7.82
9	Religion										
	a) Hindu	1	3.3	3	13.3	3	10	5	16.7		NS
	b) Christian	0	0	2	6.7	3	10	2	6.7	3.66	12.59
	c) Muslim	1	3.3	3	13.3	4	13.3	3	10		
10	Family type										
	a) Nuclear family	1	3.3	3	10	6	20	7	23.3	2.61	NS
	b) Joint family	1	3.3	5	16.7	4	13.3	3	10		7.82

(* -P>0.05, significant) (NS=not significant)

The above table shows that there was no association between the level of morning sickness among first trimester primi ante natal mothers and their demographic variables such as age, educational status, physical activity, occupation, gestational week, dietary pattern, family income, place of living, religion, and family type.

So regards that there is no relationship between morning sickness and demographic variables.

5. Data on association between the pre test level of morning sickness in experimental group and their demographic variables.

Table: 5- Frequency and percentage distribution of chi-square value on experimental group.

N=30

S.no	Demographic variables	Mild		Moderate		Severe		Profound		χ^2	P-value
		F	%	F	%	F	%	F	%		
1	Age (in years):										
	a) 21-25 years	1	3.3	3	10	10	33.3	4	13.3	3.1	NS
	b) 26-30 years	2	6.7	4	13.3	4	13.3	2	6.7		7.82
	c) 31-35 years	0	0	0	0	0	0	0	0		
2	Educational status										
	a) Degree	0	0	2	6.7	3	10	1	6.7		NS
	b) Primary school	3	10	5	16.7	11	36.7	5	16.7	2.7	7.82
	c) Un educated	0	0	0	0	0	0	0	0		
3	Physical activity										
	a) Sedentary	2	6.7	3	10	10	33.3	3	10		NS
	b) Moderate	0	0	2	6.7	3	10	1	3.3	5.6	12.59
	c) Heavy	1	3.3	2	6.7	1	3.3	2	6.7		
4	Occupation										
	a) Unemployed	2	6.7	4	13.3	8	26.7	2	6.7		NS
	b) Dailywagedworker	0	0	3	10	4	13.3	3	10	5.9	12.59
	c) Professional	1	3.3	0	0	2	6.7	1	3.3		
5	Gestational week										
	a) 1-4 weeks	0	0	0	0	0	0	0	0		
	b) 5-8 weeks	1	3.3	3	10	5	16.7	2	6.7	0.99	NS
	c) 9-12 weeks	2	6.7	4	13.3	9	30	4	13.3		7.82
6	Dietary pattern										
	a) Vegetarian	1	3.3	1	3.3	0	0	0	0	5.42	NS
	b) Non vegetarian	2	6.7	6	20	14	46.7	6	20		7.82

7	Family income										
	a) Rs.10001andabove	0	0	2	6.7	1	3.3	1	3.3		
	b) Rs.5001-10000	2	6.7	3	10	6	20	3	10	6.44	NS
	c) Rs >5000	1	3.3	2	6.7	7	23.3	2	6.7		12.59
8	Place of living										
	a) Rural	2	6.7	4	13.3	9	30	5	16.7	2	
	b) Urban	1	3.3	3	10	5	16.7	1	3.3		NS
											7.82
9	Religion										
	a) Hindu	1	3.3	2	6.7	4	13.3	3	10		
	b) Christian	1	3.3	2	6.7	6	20	2	6.7	3.17	NS
	c) Muslim	1	3.3	3	10	4	13.3	1	3.3		12.59
10	Family type										
	a) Nuclear family	2	6.7	5	1.7	10	33.3	4	13.3	1.31	NS
	b) Joint family	1	3.3	2	6.7	4	13.3	2	6.7		7.82

(* -P>0.05, significant) (NS=not significant)

The above table shows that there was no association between the level of morning sickness among first trimester primi ante natal mothers and their demographic variables such as age, educational status, physical activity, occupation, gestational week, dietary pattern, family income, place of living, religion and family type.

So regards that there is no relationship between morning sickness and demographic variables. so ginger tea was effective in reducing in morning sickness.

CHAPTER –V

DISCUSSION

This study was conducted to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers at selected primary health centre in Dindigul district.

The discussion was based on the objectives specified in this study.

The first objective was to assess the pre and post test level of morning sickness among first trimester primi ante natal mothers in the control and experimental group.

The findings shows that in the control group the pre-test scores on the level of morning sickness 2(6.7%)experienced mild morning sickness, 8(26.7%)had moderate morning sickness 10(33.3%) shown severe morning sickness and 10(33.3%) experienced profound morning sicknesss. whereas in post test score on the level of morning sickness were 1(3.3%) experienced mild morning sickness, 8(26.75%) had moderate morning sickness,12(40%) shown severe morning sickness and 9(30%) experienced profound morning sickness respectively.

The experimental group the pre-test scores on the level of morning sickness 3(10%) experienced mild morning sickness, 7(23.3%) had moderate morning sickness, 14(46.7%) shown severe morning sickness and 6(20%) experienced profound morning sickness. Whereas in post test score on the level of morning sickness were 12(40%) experienced mild morning sickness, 17(56.7%) had moderate morning sickness , 1(3.3%) shown severe morning sickness and no one experienced the profound morning sickness respectively.

The above findings are consistent with the findings of Jean Harvey (2013) had recently confirmed the effectiveness of ginger in decreasing nausea during pregnancy. Sixty-seven pregnant women in Iran who were experiencing nausea and vomiting were given 250 mg of ginger 4 times a day, while the control group was given placebo. The women taking the gingerroot demonstrated 85% improvement, while the placebo group reported a 56% improvement. A significant decrease in the frequency of vomiting occurred among the ginger group: 50% versus 9% for the placebo group. The clinicians concluded that ginger is an effective tool for decreasing nausea and vomiting during pregnancy.

The second objective was to find out the effectiveness of ginger tea in reduction of morning sickness and among first trimester primi ante –natal mothers in experimental group.

The calculated 't' value in the experimental group were 11.1 which was statistically highly significant at P< 0.001 level which clearly shows that there was a significant reducing in morning sickness in among first trimester primi ante natal mothers. The obtained't' value between control and experimental group is 7.84 which was highly significant at P< 0.001 level. These findings revealed that the subjects in the experimental group experienced reducing the level of morning sickness after the ginger tea administration compared to control group . Thus ginger tea was effective in reducing the morning sickness among first trimester primi ante natal mothers.

The above findings are consistent with the findings of Fischer's (2014) had done a study to evaluate the efficacy of powdered ginger root in the treatment of hyperemesis gravidarum among 30 women. Each women swallowed capsules containing either 250mg ginger or lactose q.i.d during first four days of treatment. The severity of symptoms before and after each period was evaluated.19 women 70.4%

stated preference to the period in ginger had been given at the level of p=0.003.More objectively assessed by relief scores a significantly greater relief of the symptoms was found after ginger treatment compared to placebo at the level of p=0.035, suggesting that powdered ginger in daily dose of 1g for four days is best in eliminating symptoms of hyperemesis gravidarum.

The third objectives of this study was to determine the association between the pre test level of morning sickness with selected demographic variables among first trimester primi ante-natal mothers in control and experimental group.

There is no association between the level of morning sickness and their selected demographic variables like age, educational status, physical activities, occupation, gestational weeks, dietary pattern, family income,place of living,religion,type of family, at $p<0.05$ level in control and experimental group.

The above findings are consistent with the findings of Iatrakin.S.M (2013) conducted a study using questionnaire to 102 pregnant women in the first 12 weeks of pregnancy in an effort to see which factor is co-related with nausea and vomiting. Findings showed that nausea, vomiting correlated with unsuitable diet with big and rare meals, poor communication with husband, poor communication with obstetrician, stress doubts and inadequate information about pregnancy and childbirth.

CHAPTER-VI

SUMMARY AND RECOMMENTATIONS

This chapter deals with the summary and conclusion. It focuses on the implications and gives recommendations for Nursing practices, Nursing research, Nursing administration, and nursing education.

SUMMARY:

The purpose of the study was "to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi anta natal mothers at selected primary health centre in Dindigul district".

OBJECTIVES OF THE STUDY:

1. To assess the level of morning sickness among first trimester among primi ante-natal mother in control and experimental group.
2. To find out the effectiveness of ginger tea in reduction of morning sickness among first trimester primi ante –natal mothers in experimental group.
3. To determine the association between the pre test level of morning sickness with selected demographic variables among first trimester primi ante-natal mothers in control and experimental group.

The design of the study was Quasi experimental non-randomized control group pre test post test design. The conceptual frame work based on Wieden bach's Helping Art Model for Clinical practices (1964). It consists of three factors- central purpose,prescription, and realities of the situation . The basic assumption of the

theory is the nurse has to identify the client needs, ministering the needed help and finally validating that the need for help was met.

The sample size consists of 60 first trimester primi ante natal mothers at selected primary health centre in dindigul district.30 samples will be assigned for the experimental group and 30 for the control group.pre test data was collected by researcher using Rhodes index of nausea , vomiting and retching scale for the both group. Experimental group received intervention of consuming 500mg boiling ginger tea daily for 4 days. No intervention was given to control group. Post test was conducted by the researcher for the both groups using the same scale on the 4th day. The data were analyzed using both descriptive and inferential statistics.

MAJOR FINDING OF THE STUDY:

- In experimental group, majority 18(60%) of the first trimester primi ante natal mothers belonged to the age group of 21-15 years, 24(80%)of them had primary school education,18(60%) were sedentary activity,16(53.3%) were unemployed,19(63.3%) of them belonged to 9-12 weeks of gestation,28(93.3%) non-vegetarian,14(46.7%) of them monthly income is Rs.5001-10000,20(66.7%) of them living in rural area ,11(36.7%) of them belonged to Christian,21(70%) of them belonged to nuclear family.
- In control group, majority 18(60%) of the first trimester primi ante natal mothers belonged to the age group of 26-30 years, 21(70%)of them had primary school education,13(43.3%) were sedentary activity,14(46.7%) were daily waged workers,15(50%) of them belonged to 9-12 weeks of gestation,25(83.3%) non-vegetarian,12(40%) of them monthly income is

Rs.<5000,23(76.7%) of them living in rural area ,21(40%) of them belonged to Hindu ,17(56.7%) of them belonged to nuclear family.

- The level of morning sickness in control group were 1(3.3%) experienced mild morning sickness, 8(26.7%) had moderate sickness, 12(40%) shown severe sickness, 9(30%) experienced profound sickness respectively in post test.
- The level of morning sickness in experimental group were 12(40%) experienced mild morning sickness17 (56.7%) had moderate sickness, 1(3.3%) shown severe sickness and no one had experienced profound sickness respectively in post test.
- The finding reveals that the level of morning sickness among first trimester primi ante natal mothers were decreased in experimental group than control group.
- The control group calculated 't' test value was 1.79 which was not significant at $p<0.05$ level. It can be concluded that there was no much difference in pre test and post test in control group.
- The experimental group calculated't' test value was 11.1 which was significant at $p<0.001$level.Hence H_1 is accepted. It was concluded that ginger tea was effective in reducing the morning sickness among first trimester primi ante natal mothers.
- In comparing post test scores of experimental and control group calculated 't' value was 7.84 which was significant at $p<0.001$. Hence H was accepted. It can be concluded that ginger tea was effective in reducing the morning sickness among first trimester primi ante natal mothers in experimental group than control group.

- There was no significant association between the demographic variables and the level of morning sickness.
- This study was conducted to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers selected primary health centre in Dindigul district. The findings revealed that ginger tea was effective in reducing morning sickness among first trimester primi ante natal mothers.

IMPLICATIONS:

The findings of the study have implications field .It can be discussed in four areas namely Nursing practice, Nursing administration, Nursing education and Nursing research.

NURSING PRACTICE:

- These results will help the nursing personnel to assess the morning sickness among first trimester primi ante natal mothers.
- The study findings will help the community health nurses to create awareness among ante natal mothers regarding benefits of ginger tea administration to reduce morning sickness.

NURSING ADMINISTRATION:

- The nurse administrator can organize and conduct various continuing education and in service programmes regarding morning sickness among ante natal mothers.

- The nurse administrator should recommend to allocate portion of budget for educational materials like pamphlets, models, slides, flexes which contain information about benefits of ginger.
- The nurse administrator can encourage staff nurse, student nurse and ante natal mothers to involve research activities of morning sickness and alternative therapies.

NURSING EDUCATION:

- Nurse educator must update knowledge about morning sickness and alternative therapies.
- Nurse educator should teach nursing student to gain skill in identifying morning sickness and can be give effective teaching regarding ginger tea consumption to reduce the morning sickness.
- Nurse educator should recommend the curriculum committee to insist the importance of ginger tea administration to primi ante natal mothers to reduce morning sickness in the curriculum.

NURSING RESEARCH:

- The findings of the study helps to expand scientific body of professional knowledge upon which further research can be conducted.
- Large scale studies can be conducted in consideration of other contributing variables.

LIMITATIONS:

- The study is conducted only on first trimester primi ante natal mothers.
- Relatively small sample size.
- The study is conducted only at selected primary health centres.

RECOMMENDATIONS:

- The study can be replicated on a large sample to generalize the result.
- A similar study can be conducted in both primi and multi para ante natal mothers.
- A similar study can be conducted through randomization procedure.

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APPENDIX-I

SAKTHI COLLEGE OF NURSING
(Approved by Govt. of Tamilnadu, Recognised by INC, TNC & Affiliated to Dr. M.G.R. Medical University)

Sakthi Nagar, Dindigul - Palani Main Road,
Palakkanuthu - (Po.),
Oddanchatram - 624 619.
Dindigul (Dt.), Tamilnadu.

Phone : 0451 - 2050272
Mobile : 97509 56810
Fax : 0451-2554317
E-mail : sakthinursingcollege@gmail.com

PERMISSION LETTER

From

The Principal,
Sakthi College of Nursing,
Oddanchatram, Dindigul (Dt)

To

The Block medical officer
Primary Health centre
Gruzilyamparai

Respected Sir / Madam,

Sub.: Request for permission to conduct pilot study – reg.

Mrs. ANNAKAMU .S is a bonafide M.Sc., Nursing student studying in our college. As a partial fulfillment of The Tamilnadu Dr. MGR Medical University requirement for the award of the M.Sc., Nursing Degree, she is undertaking (**"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMIANTENATAL MOTHERS AT SELECTED PRIMARY HEALTH CENTRE IN DINDIGUL DISTRICT"**), she has identified your centre as the best place to conduct the study.

Further details of the proposed project will be furnished by the student personally. She will not hinder your routine in any way and she will abide to the rules and regulations of the institution. All the information collected from institution will be kept confidential.

I kindly request you to grant her permission to conduct the study at your esteemed institution.

Thanking you, yours sincerely,

Date :

Place :

PRINCIPAL
Sakthi College of Nursing
Sakthi Nagar, Palakkanuthu
Dindigul - (Dist)
624 624

SAKTHI COLLEGE OF NURSING

(Approved by Govt. of Tamilnadu, Recognised by INC, TNC & Affiliated to Dr. M.G.R. Medical University)

Sakthi Nagar, Dindigul - Palani Main Road,
Palakkanuthu - (Po.),
Oddanchatram - 624 619.
Dindigul (Dt.), Tamilnadu.

Phone : 0451 - 2050272
Mobile : 97509 56810
Fax : 0451-2554317
E-mail : sakthinursingcollege@gmail.com

PERMISSION LETTER

From

The Principal,
Sakthi College of Nursing,
Oddanchatram, Dindigul (Dt)

To

The Block medical officer
Primary Health centre
Etiadu

Respected Sir / Madam,

Sub.: Request for permission to conduct research study – reg.

Mrs. ANNAKAMU .S is a bonafide M.Sc., Nursing student studying in our college. As a partial fulfillment of The Tamilnadu Dr. MGR Medical University requirement for the award of the M.Sc., Nursing Degree, she is undertaking (**"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMIANTENATAL MOTHERS AT SELECTED PRIMARY HEALTH CENTRE IN DINDIGUL DISTRICT"),** she has identified your centre as the best place to conduct the study.

Further details of the proposed project will be furnished by the student personally. She will not hinder your routine in any way and she will abide to the rules and regulations of the institution. All the information collected from institution will be kept confidential.

I kindly request you to grant her permission to conduct the study at your esteemed institution.

Thanking you,

yours sincerely,

Date :

PRINCIPAL
Sakthi College of Nursing
Sakthi Nagar. Palakkanuthu
Dindigul - (Dist)
624 624

APPENDIX-II
CONTENTVALIDITY

From

Mrs. Annakamu. S,
M.Sc (Nursing) II Year,
Sakthi college of Nursing,
Oddanchatram,
Dindigul.

To

Respected Madam/Sir,

Sub: Requisition for expert opinion and content validity regarding.

I am M.Sc (Nursing) II year student of Sakthi College of Nursing, Oddanchatram, Dindigul, under Dr. M.G.R. Medical university. As a partial fulfillment of my M.Sc (Nursing) degree program, I am conducting a research study on **"A study to assess the effectiveness of ginger tea on reduction of morning sickness among first trimester primi antenatal mothers at selected primary health centre in Dindigul district".** I am sending the tool for content validity and for your expert & valuable opinion. I will be very thankful if you return it at the earliest. Here with I have enclosed the necessary documents.

Thanking you,

Yours sincerely,

Enclosure:

1. Statement of the problem, objectives & Hypothesis of the study.
2. Tool for data collection.
3. Brief note on the research methodology and intervention tool.
4. Certificate of content validity.

APPENDIX-III

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool prepared by Mrs. Annakamu. S, M.Sc (N) II Year student of Sakthi College of Nursing for the conduction of the research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTENATAL MOTHERS AT SELECTED PRIMARY HEALTH CENTRE IN DINDIGUL DISTRICT"** is valid. She can proceed in conducting data collection.

Signature of validator

Name of the validator :

Designation :

Date :

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool prepared by Mrs. Annakamu. S, M.Sc (N) II Year student of Sakthi College of Nursing for the conduction of the research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTENATAL MOTHERS IN SELECTED HOSPITAL AT DINDIGUL DISTRICT"** is valid. She can proceed in conducting data collection.

Signature of validator

Name of the validator : Mrs. Grace Kingstone

Designation : Principal

Date : 23-02-2017

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool prepared by Mrs. Annakamu. S, M.Sc (N) II Year student of Sakthi College of Nursing for the conduction of the research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTENATAL MOTHERS IN SELECTED HOSPITAL AT DINDIGUL DISTRICT"** is valid. She can proceed in conducting data collection.

Signature of validator

Name of the validator : MRS. ABRA PEARL

Designation : ASSOCIATE PROFESSOR

Date : 23.02.2017.

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool prepared by Mrs. Annakamu. S, M.Sc (N) II Year student of Sakthi College of Nursing for the conduction of the research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTENATAL MOTHERS IN SELECTED HOSPITAL AT DINDIGUL DISTRICT"** is valid. She can proceed in conducting data collection.

A.Premalatha
Signature of validator

Name of the validator : Mrs. A. Premalatha, M.Sc(N)
Designation : Assistant Professor,
Date : 27/02/2017

GEM INSTITUTE OF NURSING EDUCATION & RESEARCH
Coimbatore
641016

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool prepared by Mrs. Annakamu. S, M.Sc (N) II Year student of Sakthi College of Nursing for the conduction of the research study on **"A STUDY TO ASSESS THE EFFECTIVENESS OF GINGER TEA ON REDUCTION OF MORNING SICKNESS AMONG FIRST TRIMESTER PRIMI ANTENATAL MOTHERS IN SELECTED HOSPITAL AT DINDIGUL DISTRICT"** is valid. She can proceed in conducting data collection.

Signature of validator

Name of the validator : Mrs. P. Shanthi

Designation : Associate Professor

Date :

APPENDIX-IV

LIST OF EXPERTIES

1. **Prof.Mrs.Janahi Devi,M.Sc(N),**
   Principal,
   Sakthi College of Nursing,
   Oddanchantram.

2. **Prof.Grace Kingston , M.Sc(N), Ph.D,**
   Principal,
   Christian College Of Nursing,
   Ambilikkai.

3. **Asst.Prof.Abra Pearl, M.Sc(N)**
   Department of obstetrics and gynaecological Nursing,
   Christian College Of Nursing,
   Ambilikkai .

4. **Asst.Prof.Premalatha saravanan, M.SC(N),**
   Department of obstetrics and gynaecological Nursing,
   GEM institute of nursing education &research,
   Coimbatore.

5. **Asst.prof.Kavitha, M.Sc(N)**
   Department of obstetrics and gynaecological Nursing,
   Sacred Heart college of nursing,
   A.Vellodu.

6. **Asst.prof.Shanthi, M.Sc(N),**
   Department of obstetrics and gynaecological Nursing,
   Srinithi College of nursing,
   Sivagangai.

7. **Dr.Sasi kala, M.B.B.S.**
   Primary health centre,
   Guziliyamparai
   Dindigul.
8. **Mr.Mani, M.Sc, M.Phil.**
   Statistician,
   Madurai.

APPENDIX-V

CERTIFICATE FOR ENGLISH EDITING

TO WHOME SO EVER IT MAY CONCERN

This is to certify that dissertation fitted"Effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers in selected primary health centre at dindigul".by S.Annakamu,II Year M.SC(N) student, Sakthi college of Nursing was edited for English Language appropriateness by Mrs.Sathya,M.A,M.Phil,M.B.A English **HOD of English** department, working in Sakthi College of Arts and Science.

A. Sathya

Signature

APPENDIX-VI

CERTIFICATE FOR TAMIL EDITING

TO WHOME SO EVER IT MAY CONCERN

This is to certify that dissertation fitted"**Effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers at selected primary health centre in Dindigul District".** by **S.Annakamu,II Year M.SC(N)** student, Sakthi college of Nursing was edited for English Language appropriateness by **Mrs.Rathi Devi,M.A,M.Phil,M.A,P.hD.,HOD of Tamil** department, working in Sakthi College of Arts and Science oddanchathram.

B. Rathi Devi

Signature

APPENDIX-VII

SAKTHI COLLEGE OF NURSING

CERTIFICATE FOR ETHICAL CLEARANCE

Committee Members	
Chairman Dr. Vembanan.M.B.B.S,M.S President Sakthi Educational Institution **Members** 1. Mrs.Janahi Devi., M.Sc (N)., Principal, Sakthi College Of Nursing, 2. Dr.Sasi kala., M.B.B.S Primary Health Centre Guziliyamparai 3. Mrs.Ganga Eswari, M.S.c (N) Associate Professor Obstetric and Gynecological Nursing, 4. Mr. V.Palanisamy, B.A.B.L., Advocate 5. Mr. Diaz prabhakaran, M.A., Sociology 6. Ms.Mariyammal, Ph.D., Psychology	This is to certify that Mrs. Anna kamu, M.Sc. Nursing student, Obstetric and Gynecological Nursing, submitted a protocol on study as Effectiveness of ginger tea on reduction of morning sickness among first trimester primi ante natal mothers at selected primary health centre in dindigul district. The above protocol was received by ethical committee approved and mentioned that the study is feasible to carry out under the guidance of an eligible guide. **Signature of the Chairman**

APPENDIX-VIII

SECTION-A: DEMOGRAPHIC VARIABLES

Introduction to participants:

Dear participants,

This section consists of the personal information and you are requested to answer the question correctly. The information collected from you will be kept confidential.

1. Age in years

a. 21-25years ( )

b. 26-30years ( )

c. 31-35years ( )

2. Educational status

a. Degree ( )

b. High school ( )

c. Uneducated ( )

3. Physical activity

a. Sedentary ( )

b. Moderate ( )

c. Heavy ( )

4. Occupation

a. Unemployed ( )

b. Daily waged workers ( )

c. Professionals ( )

5. Gestational weeks

a. 1-4 weeks ( )

b. 5-8 weeks ( )

c. 9-12 weeks ( )

6. Dietary pattern

a. Vegetarian ( )

b. Non vegetarian ( )

7. Family income

a. Rs.10, 001 & above ( )

b. Rs.5001-10,000/- ( )

c. Rs.<5000/- ( )

8. Place of living

a. Rural ( )

b. Urban ( )

9. Religion

a. Hindu ( )

b. Christian ( )

c. Muslim ( )

10. Family type

a. Joint family ( )

b.Nuclear family ( )

RHODES INDEX OF NAUSEA, VOMITING AND RETCHING SCALE

Patient initials_____

Date _____

Day of week_____

Time of day_____

Directions: Please mark the box in each row that most clearly corresponds to your experience. Please make one mark on each line.

SCORE

		4	**3**	**2**	**1**	**0**
1.	In the last 12 hours I threw up _____ times.	7 or more	5-6	3-4	1-2	I did not throw up
2.	In the last 12 hours from retching and dry heaves. I have felt _____distress.	Severe	Great	Moderate	Mild	No
3.	In the last 12 hours from vomiting or throwing up. I have felt _____ distress	Severe	Great	Moderate	Mild	No
4.	In the last 12 hours. I have felt nauseated or sick to my stomach	More than 6 hours	4-6 hours	2-3 hours	1hour or less	Not at all
5.	In the last 12 hours, from nauses/sickness to my stomach. I have felt _____ distress	Severe	Great	Moderate	Mild	No
6.	In the last 12 hours, each time I threw up. I produced a _____ amount.	Very large (3 cup or more)	Large (2-3 cups)	Moderate (1/2-2 cups)	Small (up to ½ cup)	I did not throw up
7.	In the last 12 hours, I have felt nauseated or sick to my stomach _____ times.	7 or more	5-6	3-4	1-2	No
8.	In the last 12 hours, I have had periods of retching or dry heaves without bringing anything up _____ times.	7 or more	5-6	3-4	1-2	No

Total Scores: 32

Morning sickness	Scores
• Mild	0-8
• Moderate	9-16
• Severe	17-24
• Profound	25-32

தனிநபர் விவரம்

இந்த பகுதியில் உங்களைப் பற்றிய சொந்த விவரங்கள் கொடுக்கப்பட்டுள்ளது இதற்கு ஏற்றவாறு விடையளிக்குமாறு கேட்டுக்கொள்ளப்படுகிறது.

1. வயது (வருடங்களில்)

   அ) 21-25 வயது ( )

   ஆ) 26-30 வயது ( )

   இ) 31-35 வயது ( )

2. கல்வத் தகுதி
   அ) பட்டதாரி ( )
   ஆ) நடுநிலைகல்வி கற்றவர் ( )
   இ) படிக்காதவர் ( )

3. உடல் செயல்பாடு
   அ) சரீர உழைப்பு ( )
   ஆ) சுமாரான ( )
   இ) கடினமான ( )

4. தொழில்
   அ) வேலை செய்யாதவர் ( )
   ஆ) கூலி வேலை ( )
   இ) பட்டதாரி வேலை ( )

5. கர்ப்பத்தின் வாரம்
   a) 1-4 வாரம் ( )
   b) 5-8 வாரம் ( )
   c) 9-12 வாரம் ( )

6. உணவு பழக்கம்
   அ) சைவம் ( )
   ஆ) அசைவம் ( )

7. குடுப்ப மாத வருமானம்

   அ) ரூ. 10,000 மற்றும் அதற்குமேல் ( )

   ஆ) ரூ. 5001-10,000/- ( )

   இ) ரூ < 5000/- ( )

8. இருப்பிடம்

அ) நகரம் ( )
ஆ) கிராமம் ( )

9. மதம்

அ) இந்து ( )

ஆ) கிறிஸ்துவர் ( )

இ) முஸ்லீம் ( )

10. குடும்பத்தின் வகை

அ) தனிக்குடும்பம் ( )

ஆ) கூட்டுக்குடும்பம் ( )

ரோடக்ஸ் இன்டக்ஸ் ஆப் குமட்டல், வாந்தி மற்றும் வாந்தி வருவதை போதான அளவுகோல்

தாயின் பெயர் :
தேதீ :
கர்ப்பத்தின் வாரம் :

வ.எண்		4	3	2	1	0
1	கடைசி 12 மணி நேரத்தில் எத்தனை முறை வாந்தி எடுத்தீர்கள்	7 அல்லது அதற்குமேல்	5-6	3-4	1-2	வாந்தி எடுக்கவில்லை
2	கடைசி 12 மணிநேரத்தில் வாந்தி வருவதை போலான கஷ்டத்தை எப்படி உணர்த்தீர்கள	கடுமையாக	சுமாராக	மிதமாக	லேசாக	இல்லை
3	கடைசி 12 மணி நேரத்தில் எடுத்த வாந்தியினால் எந்த மாதிரியான கஷ்டத்தை உணர்ந்தீர்கள்	கடுமையாக	சுமாராக	மிதமாக	லேசாக	இல்லை
4	கடைசி 12 மணி நேரத்தில் எவ்வளவு நேரம் வயிறு உபாதையகாவும், குமட்டலாகவும் இருந்தது	6 மணி நேரத்திற்கு மேல்	4-6 மணி நேரம்	2-3 மணி நேரம்	1 மணி நேரம் மற்றும் அதற்கு கீழ்	இல்லவே இல்லை
5	கடைசி 12 மணி நேரத்தில் எவ்விதமான வயிறு உபாதையும் குமட்டலும் இருந்தது	கடுமையாக	சுமாராக	முிதமாக	லேசாக	இல்லை
6	கடைசி 12 மணி நேரத்தில் ஒவ்வொரு முறையும் எவ்வளவு அளவு வாந்தி எடுத்தீர்கள்	மிக அதிக அளவு (3 கப் அல்லது அதற்கு மேல்	அதிக அளவு (2-3) கப்	மிதமாக (1/2 -2கப்)	கொஞ்சம் (1/2 கப் அளவு)	வாந்தி எடுக்க வில்லை
7	கடைசி 12 மணிநேரத்தில் எத்தனை முறை குமட்டல் மற்றும் வயிறு உபாதையும் இருந்தது	7 அல்லது அதற்கு மேல்	5-6	3-4	1-2	இல்லை
8	கடைசி 12 மணி நேரத்தில் எத்தனை முறை குமட்டல் மட்டும் இருந்தது வெளியில் எதும் வராமல்	7 அல்லது அதற்கு மேல்	5-6	3-4	1-2	இல்லை

அளவு மதிப்பீடு

மொத்த மதிப்பீடு 32

0-8 ___ லேசான

9-16 மிதமான

17-24 கடுமையான

25-32 மிக கடுமையான

APPENDIX-IX

GINGER TEA PREPARATION

GINGER TEA PREPARATION

Ginger tea:

Ginger (Zingiber officinale) is useful both as medicine and as a spice. Ginger can be used as a powder, oil, juice, tea or in its fresh form. For many years, people have used this herb to treat ailments such as diarrhea, colic, morning sickness.

Ingredients:

2-3 slices of ginger(250mg)

1 cup of filtered water (150ml)

½ tsp honey or sugar

Method:

- Wash the ginger root well and then peel. Slice it into small pieces.
- Boil 150ml of water over medium to high heat and then add the sliced ginger, allow it to boil for 3-5mts. Remove from heat and strain. Added honey for taste (1/2 teaspoon). Sip slowly and relax.

APPENDIX-X

PHOTO GALLARY

Assessing the Morning Sickness

The investigator Administering Ginger tea